

THE NEWSLETTER FOR 🦺 COMPUTER USERS

SOMETHING WE CAN CALL OUR OWN

Logo by: R. Gerry Moore Story by: Bruce N. Warner

Have you noticed there's a new masthead for the MOTD? How about that new banner across the front page? And look at this! Our own logo! Now we're talking!

A lot of effort has gone into the new MOTD. We have our own logo now, and we're growing beyond even your wildest expectations. At last count, we had somewhere around 1300 members, and we took like it.

When Gerry Moore, of Dale City, VA, was asked to come up with something that would be simple yet effective to portray the OS-9 Users Group, we gave him an open hand. He decided that it had to say something about computers. It had

to be clean. It had to be different. It had to be noticeable.

What he came up with was the design you see on this page. It's clean, simple and effective. It's uniquely our own and you'll see it everywhere we go.

Some will ask why we didn't just use the Microware logo. Simple, that's a trademark. Use of their logo would be the same as pirating software or publishing someone else's book under your name. It just doesn't work that way.

If you think Gerry's name is familiar, it's only because it is. Gerry's the same guy that designed the banner for the MOTD. I'm glad to have the opportunity to thank him here in the MOTD.

Enjoy having pride in the new UG logo, just like you have pride in the OS-9 operating system.



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11/40/9

STRIP, ONE POWERFUL UTILITY

This description of the STRIP utility, along with the accompanying source code listing are from the OS-9 UG Library (disk #25). Thanks to Darryl Hock and Dave Kaleita, this program will help you transfer those files you have to do while on the road into your OS-9 system. STRIP is used to strip, add or process any combination of CRs, LFs, back spaces (processed) and/or control characters.

STRIP is a very versatile control character-stripping filter. Its default options clear the parity bit (bit 8) of every byte in an input file, and strip all control characters except carriage returns and linefeeds from the remaining characters. You can, however, select the "-L" option, in which case linefeeds will also be removed, and/or "-C", which will strip all carriage returns. Alternately, the "+L" option causes STRIP to add line feeds

after every carriage return in the file (even if linefeeds already exist). STRIP will also process all backspace characters in the file by selecting the "+B" option. When that option is used, a non-backspace character is also removed for every backspace character that appears in the processed file. This is useful when processing data saved from a session on a RRC

In all cases, STRIP prints the number of characters stripped in a message to the standard error output when it is done. If you would also like to see which characters are being stripped during processing, select the "+D" option.

Note that options are processed in the order they appear on the calling line. For example, the line "Strip +b -l +d +l -l <InFile>OutFile" will strip all linefeeds and control characters appearing in InFile, process all backspaces, and print

all characters it removed so far to path #2. It would then add linefeeds after each carriage return in the file, and then remove them again! The "number of characters stripped" message would reflect the total removed only and not those added with the "+1."

Also note that the "+d" option did not print all characters stripped from the input file, but just those stripped by the options appearing before it on the calling line. As another example, use "Strip +L-C" to replace all carriage returns in a file with line feed characters. STRIP prints a help message if you type "Strip -?."

Since STRIP is written in assembly language, it doesn't require any additional software. It will run on all levels of OS-9 and all versions. It was originally written on a Hazelwood Helix.

00001 00002 00003 0001 =	LEVEL	nam use equ ifpl	Strip /h0/defs/defsfile l select level one
00009		endc	
00010		ttl	Filter to strip control characters from a
Continued to page 4			

GETTING IT TOGETHER!!!

The development of this issue. . .

by Bruce N. Warner, Editor

There's never a dull moment when you're in the OS-9 Users Group. Travelling from one end of the house to the other can be a journey through a lost galaxy. Some Hollywood producers would call it "a galaxy far far away." My wife just asks how I ever get in and out of the computer room. Last night it took 45 minutes to make the 15 foot walk from computer room to bedroom (yes, UG officers do sleep, but not much). A call from Brian, then one from Dale, then another from Fred. I finally decided to let the answering machine take the calls and ended up missing one from my parents.

A real improvement and soething new

The latest news is that both our new banner and our new masthead have received wide acceptance. And to make things even better, we're now ready to show off our new logo, It's been in the works for months now. The UG officers and directors accepted the design during a late night meeting at the Palo Alto RAINBOWfest. The design is by Gerry Moore. Gerry isn't into computers at all. He's an artist from Dale City, Virginia who works in Washington, DC, and one of my best friends. When the idea of a logo first came up I mentioned Gerry does that kind of stuff, and the UC officers decided to give him a chance. When we showed off his design at the Palo Alto RAINBOWfest it was an instant success. Even the people that just stopped by the booth thought it was a

Speaking of Palo Alto, you wouldn't believe how well our booth did. I felt guilty being there. There's something about being able to share your knowledge with people that really want to know how to use our favorite operating system. The thing that really made me feel good was how many people wanted the MOTD bad enough that they were looking to buy a subscription, they were shocked to find out that it's free when you join the UG. That's only the beginning! There were at least ten people that came up to ask a question and ended up joining the UG because they felt part of the UG

from the way they were handled. One of them mentioned he felt the answers he received were worth the price of membership for the next ten years. Thanks to people like Brian, Bill, Steve and Dale.

Some goofs

Okay, so I'm not perfect, but neither is anyone else, and I'm far from the exception (just ask my wife). We're just now getting a feel for how much copy it takes to fill an issue of the MOTD, so I had made an assumption that there were certain articles that would fit in the last issue of the MOTD that didn't make it. I can start with the UG library reviews by Bert Schneider.

This takes us back to that "Inner Circle" Ispoke of in the last issue. If there is anyone that should have his/her articles included because of their closeness to the UG officers, it's Bert. He has devoted more time and effort to the UG and our library than anyone I know. There's always someone behind the scenes, and Bert is the man behind the scenes of the library. I apologize publicly and personally to Bert for the missing review of the UG library disks. You'll find them in this beside.

Speaking of Bert Schneider, he's agreed to start a column that provides a mini-tetorial on an individual programs from the UG library. What we'll try to do is have Bert select the program of the month and make his tutorial on that program. This will kill two birds with one stone.

A chat on Delphi

I had the pleasure of going on-line at the end of February for a DELPHI conference. The notorious Marty Goodman was out there stirring things up as usual (I may regret telling Marty we need people to stir things up on occasion), but he added a lot to my pleasure of being the guest speaker.

One of the nicest things to happen was my request for people to write for the MOTD, I thought it was a good idea until tonight when George called (I forgot to get his last name) asking what he would have to do to write for the MOTD. I was glad to tell him we're always looking for new writers, and that he'd be joining good company. Let's look at whose out there!

Somewhere there's another Dale Puckett, another Brian Lantz, and God forbid, even another Bruce Warner (my wife says God couldn't have that strange a sense of humor). My point being that the UG would be the ideal place to get published first. You'll find that you're in the company of writers the likes of Bill Barden. Steve Bjork and Jim Kemp. Steve and Jim are two of the newest members of the UG thanks to our trip to Palo Alto.

Good food and good times

If there's one thing I've been able to learn about community breakfasts, it's that you should expect lousy food. By that standard, we were a failure with our first community breakfast. I even went back for seconds, something I'm not suppose to do.

The next role is that you must have a bad speaker, so we messed up again, Paul Searby was trememdous!

Thirdly, you have to pick on Esther Protests. Esther under it make the house fast because someone had picked up the wrong bag at the airport (Esther's clothes were somewhere in San Francisco all weekend white she was in Palo Alto). Remember that when you think you're picking up that all too familiar looking luggage at the baggage pick-up.

So by the rules of community breakfasts, we failed, but we certainly had a great time, and everyone enjoyed it. Check the article in this issue on Paul's talk

So what's next? Keep reading the MOTD. I've heard ramors about a British OS-9 conference some time this summer. It may be just a rumor, but we all know how rumors are. Every so often there's a little truth to them.

Is there anything else to say

I could go on for days, but I'd lose both my friends, so I'll wrap up for now."Tune in again next month when Bruce says....
"Oh no, not another MOTD!"

April, 1986

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CAN I PLACE AN AD?

It hadn't dawned on me that there are a lot of people out there that want to advertise in the MOTD that aren't already advertising in other publications. So what do they do?

Well, here's the deal! You start out by getting your ad made up (called camera ready copy). When that is completed, you submit your ad with a check made out to

the OS-9 Users Group and send both to:

Editor, the MOTD c/o Bruce N. Warner 14503 Fullerton Road Dale City, VA 22193-2034

The price for advertising in the MOTO is based on the size, location and number

of colors (limited to black and red). This chart explains more completely.

Make sure that you've included your camera ready copy and a check for payment made out to the OS-9 Users Group. The deadline is the first of the month proceeding the month of intended publication.

	R	EGULAR	SPECIAL (back cover		
SIZE	1-Color	2-Colors	1-Color	2-Colors	
Full Page	\$400	\$480	\$500	\$600	
Half Page	\$200	\$240	\$250	\$300	
Quarter Page	\$100	5120	5125	\$150	
Eight Page	\$ 50	\$ 60	\$ 62.50	\$ 75	



The QT family of multi-user, multi-tasking computers supports from 4 to 20 users. Currently 9 models are available, ranging in price from \$ 1,595 to \$ 8,795. Models are available with the Motorola 68008, 68000 or the new 32 bit 68020 CPU. CPU speeds range from 8 Mhz to 16.67 Mhz; RAM size from 128K to 2048K and ROM from 2K to 256K. All the QT's have a built in SASI interface and will support any hard drive. All QT's include OS9/68K, the multi-user operating system with Basic, utilities, word processing and spreadsheet programs. The QT's take up less than one cubic foot of space.

The QT series:

The basic QT has 128K RAM, 68008 CPU, 8 Mhz and will support 4 users and 2 printer ports. The single floppy version is priced at \$1,595 (Retail \$2,095) and is field upgradeable to 512K RAM and 20 Meg hard drive. This system sells for \$2,995 (Retail \$3,595).

The QT Plus series:

This QT has 512K RAM, 68000 CPU, 10 Mhz and supports 4 users and 2 printer ports. The single floppy version is priced at \$ 2,095 (Retail \$ 2,695) and is field upgradeable to 1024K, 8 serial ports and hard disk. The QT Plus 4 user system with 512K RAM and 20 Meg hard drive is priced at \$ 3,495 (Retail \$ 3,995). The 512K upgrade costs \$ 395 (Retail \$ 495).

This QT has 2048K RAM, 68020 CPU, 12.5 Mhz and supports 4 users and 1 printer port. This system can be expanded to 20 users with 16.67, Mhz. The QT 20 with a 20 Meg hard drive sells for \$7,495 (Retail \$8,795).

QT Price List 1986

CONFIG.	DIRECT	RETAIL
QT 1 Drive	\$1,595	\$2,095
QT 2 Drives	\$1,750	\$2,295
QT 20 Meg HD	\$2,995	\$3,595
QT+ 1 Drive	\$2,095	\$2,695
QT+ 2 Drives	\$2,250	\$2,895
QT+ 20 Meg HD	\$3,495	\$3,995
QT 20 20 Meg HD	\$7,495	\$8,795

OS9/68000 SOFTWARE

/A.V	allable Now	
Sculptor	\$995 (\$695 for QT owners)	
Microware C	\$400	
Microware Pascal	\$400 Add 3.50 Shipping	

1976 FRANK HOGG LABORATORY 198

770 James St., Syracuse, NY 13203 Telex 646740

315/474-7856

OSS is a medicative's of Microscope fire.

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Continued from page 1
             ***
00011
00012
             * Strip [+/-1] [-c] [+b] [+d}
                   Copies standard input to standard output, removing
00013
00014
                   control characters (except carriage returns and line feeds)
00015
                   as it goes.
             * "+1" option causes line feed to be added after each carriage retu
00016
00017
             * "-1" option causes line feed characters to be filtered also.
             * "-c" option causes carriage return characters to be filtered also
00018
00019
             * "+b" option causes backspace carhacters to be processed.
00020
             * "+d" option causes stripped characters to be sent to the error ou
00021
             * Written by Darryl A. Hock and David L. Kaleita, 02/07/84
             * Placed in the public domain, 02/19/85
00022
00023
        0000 87CD03D6
                                  mod
                                        STPEND, STPNAH, PRGRM+OBJCT, REENT+1, STRIP, S
                                         "Strip"
        000D 53747269
                         STPNAM
00024
                                  fcs
00:025
        0012 04
                                  fcb
                                         4
                                                    Edition number
00026
        000D
                         C$CR
                                  șet
                                         SOD
                                                    ASCII carriage return
                                        SOA
        A000
                         C$LF
                                                    ASCII line feed
00027
                                  set
                                         $08
00028
        8000
                         C$BS
                                  set
                                                    ASCII back space
                                         * C
00029
        0043
                         C$ASCC
                                  set
                                                    carriage return parameter char
00030
                                         † L
        004G
                         C$ASCL
                                                    line feed parameter character
                                  set
00031
        0042
                         C$ASCB.
                                         " B
                                                    backspace parameter character
                                  set
                                        'D
00032
        0044
                         OŞASCD
                                  set
                                                    display stripped characters
00033
00034
              * Static Storage Offsets
00035 D 0000
                                         0
                                  org
00036 D 0000
                         BUFSIZ
                                  TELD
                                         2
                                                    Size of input buffer
00037 D 0002
                         BUFPTR
                                  rmb
                                                    Output buffer pointer
00038 D 0004
                         BYTCHT
                                  tep
                                                    input buffer transfer size
00039 D 0006
                         ORDER
                                         1
                                                    parameter order temporary
                                  rab.
                                                    1- strip carriage returns
00040 D 0007
                         MINUSC
                                  rab
                                        1
                                  rmb
                                                    1- strip line feeds
00041 D 0008
                         HINUSL
                                         1
00042 D 0009
                         PLUSL
                                  rmb
                                         1
                                                    1- add line feeds
                                                    1- process backspaces
00043 D 000A
                         PLUSE
                                        1
                                  rmb
                                                    1- display stripped characters
00044 D 000B
                         PLUSD
                                  rnb
                                        1
                                         1
                                                    l= lst stripped character
00045 D 000C
                         FLAG
                                  Imp
00046 D 000D
                                                    Displayed character string
                         CHAR
                                  rmb
00047 D 000F
                         STRPCNT rmb
                                                    Number of bytes stripped count
                                         $250-.
                                                    Stack space
00048 D 0011
                         STACK
                                  rmb
                                         4096-.
00049 D 0250
                         BUFBEG
                                  rnb
                                                    I/O buffer (May be increased)
00051
         0013 5573653A
                         STRPUSE fcc
                                         "Use: Strip [-c] [+/-1] [+b] [+d]"
00052
         0034 OA
                         LF
                                   feb
         0035 57696C6C
 00053
                                  fee
                                         "Will strip all control characters except
00054
         006C 0A
                                  fcb
                                         C$LF
00055
         006D 20207374
                                  fcc
                                            standard input and send result to stan
00056
        OOAL OA
                                  fcb
                                        C$LF
00057
        00A2 20202D63
                                  fcc
                                           -c - Strip carriage returns from input
        OOCB OA
00058
                                  fcb
00059
        00CC 20202D6C
                                        " -1 = Strip line feeds from input,"
                                  fcc
00060
        OOEF OA
00061
        00F0 20202B6C
                                        " +1 = Add line feeds after each carriag
                                  fcc
00062
        0121 OA
                                  feb
                                        CŞLF
00063
        0122 20202862
                                  fcc
                                           +b = Process back space characters."
00064
        0147 OA
                                  fcb
                                        C$LF
        0148 20202364
00065
                                        " +d = Display stripped characters to er
                                  fcc
00066
        017B OD
                                  feb
00067
        0169
                         STRPSIZ set
                                        *-STRPUSE
00068
        017C 0A
                         STRIPD
                                  fcb
                                        CŞLF
00069
        0170 53747269
                                        "Stripped characters:"
                                  fec
00070
        0191 OA
                                  fcb
                                        CSLF
00071
        0192 24
                                  fcç
                                        m$#
00072
        0017
                         STRPDSZ set
                                        *-STRIPD
00073
        0193 QA
                        TERM
                                  fcb
00074
        0194 4E756D62
                                        "Number of bytes stripped: $"
                                  fee
00075
        0016
                        TERMSIZ
                                  set
                                        *-TERM
00076
        01AF 2C24
                        SEP
                                        ",$"
                                  fcc
00077
        0002
                        SEPSZ
                                  set
                                        *-SEP
00078
00079
             * Move stack and setup buffer space
000080
        OlB1 32C90211
18000
                                  leas STACK+$200,0 Move stack to safe place
                        STRIP
00082
        0135 3440
                                  pshs U
                                                   Bottom of memory
00083
        0137 1F20
                                  tfr
                                       Y,D
                                                   .. from top of memory
00084
        01B9 A3E1
                                  subd ,S++
                                                    .. equals memory size
00085
        01BB 830250
                                  subd #BUFBEG
                                                   ..less buffer space
00086
        018E 108E0000
                                  1dy
                                        #0
                                                   divide buffer space by 3
00087
        0102 830003
                        STRIPOO subd #3
        0105 2504
88000
                                  bes
                                        STRIPOL
00089
        01C7 3121
                                  leay 1,Y
00090
        0109 20F7
                                  bra
                                        STRIPOO
00091
        01CB 109F00
                        STRIPO1 sty
                                        BOFSIZ
                                                   Store buffer size
Continued to page 12
```



What does everything that OS-9 does, but does it slower, less dependably, and less efficiently than OS-9? You guessed it. UNIX. If you ever have the opportunity to use UNIX, you will feel very comfortable there. All of the OS-9 goodies are

there, they just take longer to execute.

And you will rarely see a floppy-based UNIX system. That's because the UNIX kernal is not as efficiently written as OS-9. It is several times larger. It requires a hard disk to make it's swapping of tasks even slightly useful. But that's okay, UNIX is an evolving system! I'm sure that as they perfect it, it will become more "OS-9 like."

Sure, the last two paragraphs are a bit "tongue-in-check." Yeah, they may have stretched the truth a bit! But why do you always hear about UNIX, and never hear about OS-9 in the generic computer magazines?

And some of our own manufacturers don't help the situation. Some of them would like to hide the fact that they run OS-9. Some of our manufacturers want to hide the fact that OS-9 is as flexible as it is; running on systems from a CoCo, to several SS50 manufacturers, and on to VME-bus systems. Systems from a single board, to a complex system of various

components.

This care to studying this, we should be shouting it. We should be letting the world know that for any application (from industrial control systems to multiuser business systems) OS-9 is THE system. When the Apple Macintosh first came out. Apple sent out several people to promote the Mac. These people were dubbed the "Mac evangelists", because their mission was to win the world over to the Macintosh. We need to be "OS-9 Evangelists", telling the MS-DOS'ers and the UNIX'ers and the CPM'ers that there is a better way.

And while we are at it, let's drop this silly battle within our own ranks that has been continuing for so long that most of us can't remember a time of peaceful coexistence. I'm talking about the old "If you don't own a ****** computer, then it's not any good"! The "wat of the hardware" has done more to damage OS-9, the SS50 bus, the Motorola family of processors and the UG then all other combined factors. I am firmly convinced that if we (notice that I include myself in this), if we will unite together for the common good, we will be a stronger power in the marketplace. Let's get the "us versus them" out of our dealings with each other! The OS-9 Users Group is for the promotion of OS-9, not the promotion of any particular vendor's hardware or software.

THE "AT LAST, SOMEONE'S DONE IT RIGHT" DEPARTMENT:

(Oh, boy. With sub-titles like this, I feel like Dvorak!) Someone has finally designed a set of peripherials for the CoCo that allow you to take advantage of the flexibility of OS-9. Check out the ad on the back cover for one of our newest advertisers. CRC Computers and DISTO. For an example, in one stot of a multi-pak you can have a floppy disk controller, a real time clock, a parallel printer port, and an 80 column display. All this and 3 slots left over! Now let's

UNIX, THE OS-9 LOOKALIKE

by Brian A. Lantz__

see ... If we can get this much into a single slot, how much can we pack into the other 3 slots?

GROWING PAINS:

The single most difficult thing to adjust to is "change." We resist it personally. We avoid it professionally. In most cases, we allow our apprehension about "change" to limit us in our usefulness.

I say this, because the UG is still incurring "growing pains"! The membership of the UG is still growing at a rate of about 100 new members a month. The activities that we are involved in or responsible for are growing daily. The MOTD, as you have been able to see over the last few months, have improved in quality, grown in size, and is trying to give you the information and features that you have been asking for.

With all of this, and the few things that we are not yet able to discuss, the UG officers are having to try to organize themselves better and involve more people. If you have a desire to assist in operating some area of the UG, let the officers know.

I am very pleased that so few pieces of correspondence have "slipped through the cracks". I can count on the fingers of one hand the number of letters of com-plaint we have received, for one reason or another. But even one unsatisfied member is one too many! Help us to keep this to a minimum in these two ways: (1) Whenever you correspond with us, use the new UG address, not the old P.O. Box. Though this mail gets forwarded to us, it takes it a lot longer to get to us. In a few cases, the delay has been several weeks. (2) Always include your telephone number. Under most cases, a misunderstanding can be straightened out with a quick phone call.

While I am on the subject of "growing pains", let me mention a problem that we had with the last issue of MOTD that you may not have been aware of. The problem, one that Tim Grovae would have loved to have, was that we had too much copy for the last issue, and some of the articles had to be left until this issue. These kind of problems are good to have. since they say that there are more people contributing more articles! If these kind of problems persist, we may need to increase the size of the MOTD. In the meanwhile, our thanks to Marc Johnson. Fred Scoville, and Bert Schneider for their understanding with this situation,

ABOUT COMPUSERVE:

And for your information, if you haven't been on the OS-9 SIG of Compuserve in the last few weeks, there have been some changes. The SIG has a new SYSOP, Wayne Day, Wayne is assisted by two capable assistants, Jonathan Clutz and Pete Lyall, While it's still the "Same 'ole SIG", Wayne promises bigger and better things for the OS-9 spot of Compuserve.

THE "YOU ARE WHAT YOU WEAR" DEPARTMENT:

The OS-9 UG has the last of the OS-9 tee-shirts that Microware had made for last year's Des Moines Seminar. There are two types; the clean one, and the "provocative" one. The clean one says "To be good, you have to be different," The "provocative" one says, "Our software keeps your hardware up", and features a female on a street-corner (Nuff said?). These are both great shirts, and a great way for us to advertise OS-9 to the multitudes. If you wish to get one or both of these shirts, send \$7.50 to the UG address, marked "ATTN: MISC." Please indicate which shirt and the size (small, medium, etc.). There are only of a few of these left, so if you are interested, act fast! Whatever shirts we have left, we will take to the RainbowFest in Chicago.

SPEAKING OF RAINBOWFEST:

For information on the Chicago Rainbow Fest, see the article elsewhere in this MOTO. We will be sponsoring another OS-9 Buffet Breakfast on Sunday morning. We are pleased to have Bill Moore, from Microware as our Keynote speaker for the breakfast. Bill's boss, Ken Kaplan, was planning to speak to us at the Chicago breakfast, but Microware has been so busy lately, that he asked if we would let him take a raincheck. With this development, I took no time to ask Bill to speak to us. Bill is in charge of several new areas at Microware, including the End-User Seminars. Bill is a charter member of the OS-9 Users Group. If you live in the Chicago area, you should consider the RainbowFest May 23-25.

At the California RainbowFest, the UG started a tradition at the OS-9 Buffet Breakfasts of giving awards, OS-9 UG Grin Awards. I am proud to say that the first recipient of this award was Steve Bjork, who got the award for the most improved attitude. Steve was dragged (kicking and screaming) into the world of OS-9 by Tandy. Steve had made up his mind that he was not going to enjoy his association with OS-9, at all. But now, several months later, Steve has learned to appreciate OS-9 and love it as we have.

Another Grin Award winners worth noting is Fran McGehee, the Marketing Information Representative in charge of the Color Computer at Tandy Corporation. Fran's Award was entitled "The Twilight Zone Award." This was not a personal slur. Fran received this award for entering the wacky world of the CoCo, and the laid-back community of OS-9 and living to tell about it. I'm not sure what Fran has to think about all of us wierd computer users, after the last RainbowFest.

Also receiving awards, for various reasons, were Wayne Day, Lonnie Falk, John Roach-Ed Juge-Mark Segal-Tandy et al, and Jack Tremell. It may just come to be that the "big names" of the OS-9 world won't dare miss the Buffet Breakfasts of Rainbow Fest, for fear that they will be the unknowing recipient of the UG's Grin Award.

HOT OFF THE PRESS:

The latest and most exciting news about OS-9 was recently found in the Des Moines Register. The Des Moines local paper reported an interesting story about Sony, Phillips, Microware, and the new standard for interactive CD ROM players. See the article on the CD ROM Standard for the brief highlights. By the next issue of MOTD, we should have a lot more details.

RUMORS:

And to close, let me leave you with a rumor that I heard today. Now understand, this is a rumor! I do not (personally) know if this is true, though I have reason to believe it to be so (half because of the content, half because of the source).

If seems that a relative unknown to the computer industry, a young redheaded man by the name of Bill Gares, was talking to one of the clients of his struggling company, Microsoft, When talking to this client, it is said that the conversation mentioned that OS-9 had become the De-facto Standard operating system for the Motorola 68000 processor family. Mr. Gates assured his client that since this is so, his company (Microsoft) would be doing their best to start porting their major software products to 68000 OS-9.

Steve Bjork, step aside, You no longer have the most improved attitude about OS-9. I think that Bill Gates should now be given this award. Welcome Microsoft, into the world of a TRUE operating system!

CD ROM Standard

The March 4 issue of the Des Moines Register carried an interesting story. It seems that a joint announcement was made locally by Sony, Phillips and Microware, with a national press announcement to follow in a few weeks. Sony and Phillips have been working on a Standard for the newly developing CD ROM industry. These two supercompanies called Microware and the three companies have been working together since 1982.

The result is a standard for CD (Compact Disk) Interactive ROM Players. The machines will contain Motorola 68000 processors, and will be run by software containing 68000 OS-9!

The CD ROM Technology is an exciting new frontier, with as many angles as your imagination can think of! Talking encyclopedias, and dictionaries are the most commonly thought of, but why not games, or educational tools, or . . .

These CD ROM players are said to be

as easy to use as a VCR, with the capability to hold the equivalent of over 150,000 full pages of text.

This standard, developed together on three different continents, should start materializing in products by as early as 1987.

What does this mean to OS-9? It's too early to tell how much OS-9 will become a part of other commercial products. It's also too early to tell how important this announcement really is. Many industry watchers are saying that this is as important a decision as was the licensing of MS-DOS by IBM for their first personal computer. Some are saying that this is only the beginning of many important deals involving OS-9. It's too early to tell how much of this is true. Maybe these are understatements!

Look in the next issue of MOTD! We will try to have more details on this exciting and important development in the life of your favorite operating system!

THIS COULD BE A PRETTY PICTURE

Micro Illustrator review

by Fred Scoville

Micro Illustrator — A fun program for all ages! What is it? A graphics editor written in 1984 and licensed by TANDY for distribution using OS-9 as its operating system.

Three weeks ago the Northern Virginia Color Computer Club purchased a DMP-220 ink jet printer during one of Radio Shack's sales. Knowing this review was planned an OS-9 screen print program was ordered from the local Radio Shack store but here it is deadline time and no program. The review will not have any pictures but so be it. Maybe a supplement next issue.

The package is a single disk and a manual attractively packaged as always by Tandy. The first thing I did after backing up the disk and scanning the manual was to look for example pictures. Alas no examples. The following lists the directories supplied:

TANDY" created on: 84/12/26 Capacity: 630 sectors (1-sector clusters)

444 Free sectors, largest block 441

The program is booted as is OS-9 and then at the OS-9 prompt the command

illustrate is issued and Micro Illustrator appears. The documentation supplies a boot program to be typed in for any users who do not have one and do not have DOS1.1 or better. No problem for experienced OS-9 users but my telephone calls and mail show it to be confusing for the novice.

The main menu has fifteen commands which are accessed by using the joystick

to select the icon, pressing the fire button and then the space bar to go to the drawing screen.

Sounds simple but it takes awhile to get used to. Also the disk icon and clear icon immediately go to a submenu when the fire button is pressed. The mirror and zoom function are used in conjunction with the other commands. Three functions edge, line (as opposed to lines) and

text do not have an icon. Sounds confusing. It is, but fortunately there is a better way. All commands have a keyboard implementer which invokes the command with a single keystoke without leaving the drawing screen. This is the best feature of the editor and is enjoyable when compared to other graphic editors even the cadillac of them all—COCOMAX. Viewing the graphics screen while switching palettes with a single key makes this program a great doodler.

In addition to the lifteen icon functions each palette gives a choice of "brush" shape and pattern. With the functions of draw, lines, copy, spray, point, fill, frame, box, circle, zoom, rays, edge, line, and text one can create to his or her

As with most graphic editors unless you have good artistic talent or the patience to trace from a screen overlay I don't think you will be able to emmulate VanGough but the program is fun. It doesn't have all the functions of better known editors but it only costs \$30. The menu is clumsy but the single stroke keyboard implementation takes care of this.

There does appear to be one major bug in the program. Pressing the break key locks the computer and all is lost.

	Microillu ata Direc			_	
d-ewrewr	A 0	120	84/12/26	08:41	CMDS
\W_F	230	3607	84/12/26	08:53	OS9Boot
r-wr	5B0	E	84/12/26	08:54	STARTUP
r-wr	5F0	6CB	00/00/00	00:33	SICONS
-5-WT-WF	67.0	1800	00/00/00	00:09	TITLE
dwr-wr	A20	40	00/00/00	00:00	PICTURES
	Microillu: ution Die				
c-réwr	130	298	83/02/18	16:29	DIR
e-rewr	17.0	HD	83/01/14	09:12	RENAME
-e-rewr	IA0	A5	83/02/18	16:29	DEL
c-rewr	IC0	118	83/01/14	09:12	SETIME
c-fcwr	1F0	2D1	83/04/14	14:24	FREE
-e-rewr	5D0	29	84/10/01	11:40	CLS
-e-rewr	800	20E8	00/00/00	00:08	ILLUSTRAT

Accounts Payable/Receivable Systems

a review

by Marcus W. Johnson

What's his opinion worth? a note from the editor

The author is a software engineer currently working for a company in the delense industry, where he is alternately frustrated by the software development system (a FLEX system (!)) and the company's mainframe (a VAX running VMS). He also does consulting work, helping hapless pawns of Big Blue run their expensive software. He achieves some small measure of satisfaction (and sanity) running a CoCo, with OS-9 of course, and the new 80-track TEAC he got for Christmas (thanks to Brian Lantz for expediting it). He aspires to a 68K system in the near future (towards that end, be accepts contributions in the form of cash or checks).

He is cruel to poorly-written software and once made a CP/M system cry; he's still waiting for the right editor to come along (currently tolerating DynaStar).

Accounts Payable and Accounts Receivable are business software products from Computerware. The copies reviewed were run on a CoCo, using Level I OS-9.

The programs consist of applications written to run on Computerware's business BASIC, Random Basic, Taking

advantage of the speed afforded by the random file access capabilities of Random Basic, the programs run much faster than I expected. There are noticeable delays in execution as files are loaded from disk, but in applications such as these, running in a 64K environment, this is unavoidable. These delays typically occur when new menus (and associated programs) are loaded.

The programs perform their basic accounting functions welt. While the documentation only provided a rudimentary explanation of how each program worked, I was able, with a rather limited knowledge of accounting, to follow the screen prompts well enough to run each system without incident the first time up. If I were to grade this, I would give the documentation a C-, but the screens get an A

This is not to say that there were things I wouldn't like to see cleaned up. In my consulting work, I often hear complaints about how older business software (and you'd be amazed — or would you? — at how often software for Big Blue suffers in this respect) can not or will not handle the new 9-digit ZIP codes, or can't handle foreign codes (like Canada, for instance). Alas, these packages fall down in that respect. Under Accounts Payable, I experienced a disk problem (the problem lay in my drive, but the reason is not really relevant); after realizing that

something was terribly wrong, I wound up in Random Basic. Nothing I could do would restore me to my application, and I finally was forced to hit the reset and re-boot. This is not state-of-the-art error handling. Finally, there were little annoyances, such as the fact that on yes-no questions, the program would insist on only upper-case sometimes, and either case at other times. I could go on and you

could say that I'm nit-picking; maybe you're right. But I would have a lot easier time selling it to a business prospect with a little clean-up.

In any case, if you're running a small to medium sized business, don't mind a few idiosyncracies, and need a good accounting system, this is a nice start. At a mere \$125 cach, you're getting your money's worth.

Synopsis

Product(s):	Accounts	Payable System (Computerware) Accounts Receiv-	
	able Syste	m (Computerware)	
Cost:	\$125.00 each		
System:	Radio Sha required	ick Color Computer; 2 disk drives required; printer	
Documentation:	Weak	(*)	
Ease of use:	Good	(***)	
Error handling:	Fair	(**)	
Performance:	Superior	(****)	
Overall:	Good	(***)	

Kalling sy	stem:	
Гоог	()	The family dog might do better
Weak	(*)	It's adequate — just barely
Fair	(**)·	Tolerable, we've seen worse
Good	(***)	Does a nice job, but we've seen better
Superior	(****)	Flawless
Excellent	(*****)	Rodefines state-of-the-art

TURNER TALKS BACK!!!!

by Bill Turner

Rain, rain and more Rain. If you were there, you know what I mean. If you weren't, well, maybe, you saw it on the National News, Where? Oh. I'm sorty, I was talking about the February RainbowFest in Palo Alto. Now, I haven't lived in the San Francisco area for at least 18 years (used to live in San Rafael; Novato), but I'm sure that the folks there didn't really order that much rain!

Now if I could really spin a good yarn, I'd have you in stitches with one of those good news ∫ bad news disaster stories mine kinda goes like this: It was raining when we landed in San Jose, You get to walk to the terminal (down metal stairs and across the apron). We got all of our luggage (7 boxes) and they were the first 7 boxes off the luggage conveyor. Carried the boxes outside to get a eab. The cab can't get closer than 3 lanes away from terminal. Still Raining. The cabbie whips out of the parking lot and onto highway 101. Windows are fogged, including the windshield. Driver learned how to drive watching late night movies of Elliott Ness in New York City (or so he thought). Roll down all windows so cabbic can see. Still raining. Driver finds Palo Alto, but can't find hotel, etc.

But that's OK, 'cause I enjoyed my hour and a half, \$25, 30 minute tour of Pato Alto. I especially liked watching the faces of: The guys walking down the street . . . or the driver of the next car at the stop sign . . . or the passenger in the back of a car at a Gas Station . . . when any of them were asked "Where's the hotel . . . ?" (You see the driver spoke "excellent" English, and . . .) If you ever visit San Jose and for Palo Alto, I would recommend this tour - It's a real trip! (And I thought the plots that Goldy Hawn and Monty Python used in the movies were fantasies . . . Silly me!)

Actually the show was very interesting and informative — I especially liked the "going out of business garage sale" that was being held by a major vender. What was even better, was their total inability to accept each for the first hour or so on Saturday morning. They did take plastic though, but why they found it necessary to call in credit verifications on a \$12 purchase made with an American Express card is beyond me. What-the-heck, I was dumb enough to wait twenty minutes for them to run to the hotel lobby to place the call.

On a better note, I did get 10 meet and talk with quite a few of you, and I talked to quite a few prospective members, Some came by wondering what OS-9 was and why we were at a Color Computer. show with a QT. A number of folks stopped by the OS-9 booth just to say hi, and a few came by looking for answers to some problems that they thought were uniquely theirs (the same unique problem 47 times).

For example, a couple of guys stopped by with a BASIC-09 problem on Friday night. Seems that they had been trying to get around a particular error message for some time and were hoping that someone could help. It just happens that I had just solved the same problem a couple of weeks prior to the show, and so I talked with them for a while. All of the sudden the light went on and they took off to return to Northern California to try out the solution.

What really surprised me was when they came back the following afternoon to say "thanks!." I like the way they said it though - with a fifty dollar check and two filled out membership applications. I talked to junior high students and I talked to grandfathers, and several times I found that I was running a miniseminar in the middle of the aisles with 20 to 30 people around me. What I'm finding out is that there are a lot of people out there with a very large appetite for knowledge about OS-9 and its languages.

Following the show, I received a very nice letter from Vicki Daubner of Redding. CA, thanking me for assistance provided at the show: " ... I really appreciated the fact that everybody seemed happy to answer questions. That was a whole new experience for me. I'm used to getting silence or evasions. By the time I got back to Redding, my head was reeling and I'm still trying to sort everything out!"

Unfortunately, I see and hear from many people like Vicki - they want answers and what they get frequently is pure garbage. Vicki, now you know why the UG exists and maybe in the future someone will ask you a question, and

you'll be able to help! As a reminder for those of you in the Chicago area, The UG will also have a booth set up at the Chicago Rainbowfest in May, If my memory serves me correctly, it will be at the Hyatt Regency -Woodland. Hope to see you there.

Which brings be back to my favorite subject - UG's and why they exist. It's simple, Help. Assistance. Support. Knowledge. The newcomers learn by asking the old-timers. The old-timers leath more by trying to help the newcomers. As Steve Bjork said, "some of us remember what it took to get here . . , .

Right on Steve!

While I think about it - Did you know that many of the programs written to run under OS-9 will run without modification on any of the versions of OS-9 that currently exist? You didn't know that OS-9 does exist on many different kinds of hardware. And that both proprietary single board machines and bus oriented systems exist? Lets see, you can run OS-9 on 6809's, 68000's, 68008, 68010 and 68020 systems. You can run it in s-100 bus. systems, in Apple IIs, and even in the 1BM-PC family. Let's also not forget that the 6800/6809 SS-50 bus system is also well supported.

You can spend as little as \$300 to \$500, or you can spend 15 to 20 thousand dollars for a system that will run OS-9. And many programs will run on any of

The only rules that you have to follow

1) Use only standard OS-9 calls,

2) Minimize your use of assembly

language,

3) Don't use machine features that are unique to a single manufacturer, if you want to market your program to a larger user base, For instance, The Radio Shaek Color Computer supports a nice graphics interface, but at this time it is unique to the CoCo. Some day MICROWARE will be able to retrofit their higher level graphics interface to the smaller machines, but right now it's only available for the HITACH1 graphics controller.

A good safe way to write a program that can cross machine boundaries is to write it in one of the higher level languages, such as BASIC-09, PASCAL, FORTRAN, or C. Most, if not all, programs written in these languages will run without modification as long as the program will fit into the address space available, and providing it does not internally call OS-9 commands via the SHELL. (The command syntax for some commands is different for the 6809 and 68K versions of OS-9.)

I believe that the address space availability on a 6809 Level-1 system is around 42K. On a 6809 Level-II system it is usually around 62K. I'm not aware of any address space limitations (beyond the actual size of your real memory) in a 68000 system.

The project for this month is to compile a list of all error codes issued by OS-9 programs, especially those issued by OS-9 and the OS-9 language systems. What I am trying to do, is to create a reference document, which would be available to all UG members, that a programmer could use for assistance on what to look for when the operating system issues an error message, for example: If you receive the "WHAT?" prompt after typing in a command name, you should first check to see if that program exists by that name in your current execution directory. If it does, then issue an "IDENT" command to verify that the module you want is the first module in that file. If is is, then also check to set if the "Public Execute" (PE) and/or "Public Read" (PR) bits have been set with the ATTR command. (Oh. by the way this all assumes that the module is not currently in memory — use the MDIR command to verify this.

A second example: I have found on my GIMIX-III, Lovel-II system that when BASIC-09 issues an "Error 43" (Unknown Procedure) that it really means

one of the following:

1) You said "RUN XXX" and no module XXX can be found in either main memory, or in the current execution directory.

2) module "XXX" can not be mapped. into the memory left in your 64K address space,

3) The program can be mapped, but there is not sufficient memory for the required data areas. (You would think that you would get "insufficient memory". but this doesn't always occur.

4) Basic-09 thinks that there isn't enough memory available.

BASIC-09 adds all of the data and procedure space requirements before it. invokes the program. I converted a very large program into a main-line program. and a series of callable modules, each having their own temporary variables, The program design is such that only 1 out of the ten modules can actually be active at one time - but BASIC09 assumed that they all needed at least ONE. complete data area each, and refused to run my program. The fix was to create a new series of temporaries in the mainline program and to pass the address of them as a parameter each time one of the called programs was run. This slowed down the execution of the program to the extent that the project was scuttled.

5) Another "not enough memory" meaning for an error 43 is as follows: A program which runs in 64K might fail if called from another program, even when it is invoked through a shell, if parameters are being passed. (Apparently the passed parameter is being mapped into a 2K page, thus reducing the amount of main memory available to the called program to 62K.)

Anyway, with these two examples, you should get the idea of what I want to compile. Please send any "hints and techniques" to our Des Moines address and mark the letter "ATTN: Vice."

TEN MOST-ASKED QUESTIONS about

THE ELECTRONIC SPREAD-SHEET FOR OS-9 SYSTEMS

1. What is an electronic spread-sheet, anyway? Business people uses salead sheers to organize col umbs and rows of figures DVNACALC simulates the operation of a spread-sheet without the mass of paper and pencil Of course, corrections and changes are a snap Changing any entered value dauses the whole spread sheet to be re-calculated based on the new constants. This means that you can play. What BY to your heart's content

2. Is DYRACALC just for accountants, then? Not at all DRYACA(I can be used for pull about type of job. Not only numbers but a phanumeric messages can be handled. Invancers, and other technical users will love DYNACALE's lifeeening to main and built in scientific functions. With 6803 DYNACALE wou can build worksneeds as large as 250. countries of 256 lows H0228 columns or 9990 rows in 68000 versions. There's even a builtin sort (om mand so you could use DMACALL to manage small dara bases — each row of the vightyheet is, one record

5. What will DYNACALC do for ME? Thans a good duty, on Bascally the arswer is that DYNACALC will let your computer so just about anything you can imaging list your friends who have totus 12.3 visiCar, or similar programs just how useful an electronic spread sheet program can be for all types of household business, engineering

and scientific applications

4. Do I have to learn computer programming? MOY DYNACAUL is designed to de used by non programmers, but even a Ph Dr in Computer Science can understand it. Burs in ME: P messages are provid ed for quick reference to operating instructions

5. Do I have to modify my system to use DYMACALC? Note DriviCityCluses any standard OS 9 configura-Lion, so you don't have to spend marriy on another CPU board or waste time learning another oserating

6. WIR DYKACALC read my existing data filet? You ben DYNACALE has a beautifully simple meth of reading and which plats files, so you can communicale both ways with other programs on your system, such as the Style-Chapet word processor SorthWeep, duta base systems, or other programs written in Basico's C. PASCAL FORTRAIN, and so on

7. How fast is DYNACALC?

Mini DriNACA,C is memory resident, so there is his ask NO to slow things down. The whole data array (worksheet) is an memony so access to any point is instantanious DYMCALC is 100% machine code for bistening speed.

8. Is there a version of DYNACALC for MY system? Theres a version of DNNACALC for EVERY 05:9 system. Unless you have a CoCo, you need a CPT ter-minal with at least 80 characters per line, and direct. cursor addressing fou can mit different brands of terminal on the title same sistem. The CoCo CS-9 version is compatible with 80-column hardware. cards, or will work with the standard 32x36 screen.

9. How much does DYNACALC cost?

Radio Shack sells the CoCo OS 9 version for \$99.95. The general 6809 OS 9 version is priced at \$250. \$595 for the OS-9660 version Coreign orders add \$10 per copy for postage. We encourage dealers to handle DYNACAUT since it's a product that sells instamthrupon deinonstrátion. Cáltór write on you: company lememeas for more informandis

Where do I order DYRACALC?

if you have a CCCb order #263275 at your local Ramo Shack store Otherwise see your local DYBACASC dealer or order directly from CSC at the address below the accept telephone orders from 10 am to 6 pm, wonday incough Finday Call us at 314 576 5020 Your VISA or MasterCard is welcome All orders are shaped on 5" diskettle unless you specify otherwise. Please tell us id you need specify otherwise. Please tell us id you need specify otherwise.

Computer Systems Center a2 Four Seasons Center #177 Chesterfield, MG 63017 USA 1314) 576-5020



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DYNACALC



OS-9 U.G. SOFTWARE COMMENTARY

by Bert Schneider

This month [1] be discussing five of the OS-9 User Group Disks, I have decided to change the stopping rate of this article to a faster one so those of you who are anxious to read about disk numbers in the upper 30's and 40's won't have to wait until OS-9 Level XXIV comes about. The topics of discussion this month are; Disk #3, Word Processing Utilities; Disk #4, Programming Utilities; Disk #5, File Processing Utilities; Disk #6, Adventure Source; and Disk #7, "Adventure Program.

Disk #3 Word Processing Utilities

There are three categories of programs in this issue; programming aids, text file processing and text file output routines. For a change of page, I will use a different format from my previous "text file output."

NAME: split TYPE: text file output LANGUAGE: C SÍZE: \$2089 DESCRIPTION: This neat utility provides the user with a side by side reference of two programme they be given to see the column of a soft text file are displayed onto the srandard output. The program makes no comparison of the files, that is left up to the user (or one of the other utilities on this disk). I find this particular utility to be the most useful for quick and dirty comparisons. USE: split file! file2 <cr>

NAME: sqsh TYPE: text file processing LANGUAGE: 6809 source SIZE: \$286

AUTHOR: Eric Williams

DESCRIPTION: This program replaces each carriage return with a slash ("/"). The line size ean be anywhere from 1 to 32767 as specified in the command line (the default is 80). Errors may result if the user gives an incorrect line size.
USE: sqsh <input pathname [NNNNN]

<c1>> where NNNNN is line length (de-

fault to 80) AUTHOR: Peter Dibble

NAME: tab TYPE: text file processing LANGUAGE: Ĉ SIZE: \$579

DESCRIPTION: This routine converts spaces in a text file into a combination of tabs and spaces. The program assumes a tab size of 8 spaces. If no names are given, then tab looks for text from the standard input. It should be noted that tab cannot differentiate between spaces in normal use and those in literal strings. This program is great for file compaction (especially "C" routines).

USE: tab file output-file <er>

tab <cr>> AUTHOR: Eric Williams

NAME; te TYPE; programming aid LANGUAGE: C S1ZE: \$F8F DESCRIPTION: This utility compares two text files and outputs to the standard output the line numbers that differ between

the two files. In addition to the line number, the program lists what each file has on that particular line. For example,

10=This is a test. 10=This was a test.

13=Another neat lest. 13=Maybe another test.

is the result of two files that have different text on lines 10 and 13. USE: to file! file? <ci≥

AUTHOR: Carl Kreider

NAME: texcom. TYPE: programming aid LANGÚAGE: BASICO9 SIZE: \$162 DESCRIPTION: Texcom compares two text files, one line at a time. It performs the same function as to. USE: texcom <cr≥ (program is self prompting) AUTHOR: Carl Kreider

NAME: transfit TYPE: text file processing LANGUAGE BASIC09 SIZE: SE3F

DESCRIPTION: This routine fransliferates from one alphanumeric to another. According to The American Heritage Dictionary of the English Language, transliterate means "To represent (letters or words) in the corresponding characters of another alphabet." There are many uses for a program like this. First, you could make a cipher and eode all of your correspondence. But more realistically, you can use translit to change certain keystrokes to suit your own particular tastes. For example, in a text editor, you may prefer "I" instead of "for "locate" instead of "find." This method of creating your own aliases makes a home computer even more personal by tailoring the input to each individual user. USE: transfit >/p <er>

translit >/file <cr> This method of invoking translit will prompt you for input. You are expected to provide translit with a set of alphanumeries. that you want changed. For example:

? abc/def (note, you must include a slash. hetween sets).

will change a to d, b to e, and e to f. AUTHOR: Laura Bialon

NAME: untab TYPE: text file processing LANGUAGE: C SIZE: \$3FC DESCRIPTION: This program is used in conjunction with tab. It expands each tab into 8 spaces. USE: untab file output_file <ei>

untah <cr> AUTHOR: Eric Williams

NAME; words TYPE: text file processing LANGUAGE: 6809 source SIZE: \$F9

DESCRIPTION: This rouring outputs each word in a text file to a separate line. I renamed my routine to just plain "word" so as not to confuse this program with "words" found in the dictionary disk, volume #1. It will take the following sentence "This is a test", and create this:

is. a test

> USE: file I words <er> AUTHOR: Peter Dibble

Disk #4 Programming Utilities

Disk #4 has three areas of mogramming utilities. File maintenance, programming aid, and system utilities provide the user with capabilities to manipulate files, program and test more efficiently, and to use rhe operating system to its fullest extent

NAME; pwd TYPE: system utility LANGUAGE: 6809 source StZE: \$5FT

DESCRIPTION: The major difference between this utility and the OS-9 pwd is the ability of the user to specify the number of levels of directories printed out. By just giving the command only the current directory (working, execution denoted by using an x) is listed rather than the entire path. The path to the directory can be listed by using the * option. You now only require one utility instead of two (pwd and pxd) programs which are both 304 bytes long vs. 1521 bytes. Nore: I was unable to assemble this program without warnings and it would not run on my system (Color Computer). I have volume 4,01 and perhaps there is a limitation in this version to run on a color computer, USE: pwd <cr>

DIRECTORY—NAME

x bwq CMDS

pwd x * /d0/CMDS

ASM.6809/DOCUMENTATION

DI/SRC/ASM.6809/DQCU-MENTATION AUTHOR: Petter Dibble

NAME: bincom TYPE: programming aid LANGUAGE: BASTO9 SIZE: \$15F DESCRIPTION: This routine performs a byte for byte comparison of two specified files. Bincom reports differences and the offset into the file to the standard output. USE: bincom <e1> (it is self prompting) AUTHOR: Carl R. Kreider

NAME: modbuild TYPE: programming aid LANGUAGE: BASIC09 SIZE: \$259

DESCRIPTION: This program builds a multimodule file by selecting from existing multimodule files. It provides a good routine for making a new OS-9 boot file. The program asks for an output file name and then repeats queries for input filenames until "q" is entered. After a filename is entered, the header and size are printed and modbuild prompts the user with "Y" or "N." Thus the user can select which modules will be included.

USE: modbuild <ci> AUTHOR: Hal Snyder

NAME: graft TYPE: file maintenance LANGUAGE: Č SIZE: SAD3

DESCRIPTION: This utility enables the user to copy a sub-tree of the directory structure. The copy is performed by the program rather than creating a shell input file. This saves time and memory, It contains a 32K buffer and all file attributes, names, last access dates, etc. remain the same. Another west feature of this contine is that it is self-documented. If you just type in graft it will explain the use of the program. All programs should include an option like this.

USE: graft source_directory target_direc-

AUTHOR: Eric Williams

NAME: latest TYPE: system utility LANGUAGE: C SIZE: \$1865

DESCRIPTION: Larest prints a path name of files whose last modified date and time is later than the one given in the command line. The output is directed to the standard outpur. If the date is omitred, the the current date is used. If no time is given, then midnight of the given date is used. This is a very powerful program especially for configuration management type purposes. USE; latest directory_name [dare] [time]

> date (ormat: [mm/dd[/yy]] time in meat; [hh: mee]

AUTHOR: Eric Williams.

NAME: module TYPE: system utility LANGUAGE: C

DESCRIPTION: Module provides the capability to produce a module directory of a particular executable file. For example, a compiled BASIC09 program may have several procedures packed in a file. All you see with the dir command is the filename (even with the e option). This program can also act as a filter.

USE: module / pathname A list of names and offsets of each module appearing in the standard input are printed out. The module CRC is checked and execution will end if an error is found. Example:

module /d0/emds/checkbook 0000 checkbook 033A getchecks 0458 getdeposits

AUTHOR: Eric Williams

NAME: mv TYPE; file maintenance LANGUAGE; C

SIZE: \$A35
DESCRIPTION: This little gem moves files from one directory to another. It even copies large files quickly by manipulating the pointers. Both the file and target directory must be on the same physical device however. This is also another self-documented program. This feature comes in handy if you don't have a hard disk with an entire HELP directory on it.

USE: my file directory
AUTHOR: Eric Williams

NAME: deopy TYPE: file maintenance LANGUAGE: BASIC09 SIZE: \$B63 DESCRIPTION: Directory copy utility. USE: deopy (self prompting) AUTHOR: Brian Capouch

Disk #5 File Processing Utilities

NAME: stripz TYPE: text file processing LANGUAGE: BASIC09 SIZE: SCE DESCRIPTION: This rec

DESCRIPTION: This routine copies all lables in a disassembly listing with a prefix of "z", such as zloop!. The output is put into a separate file for creation of a substitution file with an editor.

USE: stripz <er> (self prompting) AU-THOR: Carl Kreider

NAME: equitx
TYPE: text file processing
LANGUAGE: BASIC09
SIZE: \$1D4
DESCRIPTION: Equitx strips
comments, blank lines, and pseudo
opts from assembler files. It does a
very good job and is very handy for
making room for additional memory
required to assemble a program.
USE: equitx <cr>(prompts user for
input and output files)

AUTHOR: Carl Kreider

NAME: pad TYPE: text file processing LANGUAGE: BASIC09 SIZE: \$162 DESCRIPTION: This program improves the readability of disassembled listings by inserting blank lines after control transfer statements, etc. Self prompting. USE: pad
AUTHOR: Carl Kreider

NAME: sort
TYPE: file processing filter
LANGUAGE: C
SIZE: \$3E1
DESCRIPTION: This is a general purpose sort routine. It sorts lines of text from the standard input and produces a sorted version out to the standard output. The file must fit in memory. This is a very quick all purpose sort program that can be implemented into just about any program.
USE: sort <file >sorted_file
AUTHOR, Eric Williams

NAME: hx
TYPE: file processing filter
LANGUAGE: 6809 source
SIZE: \$430
DESCRIPTION: This routine converts the standard input to a readable Hex dump format output along with the ASCII equivalent. The x option will suppress the ASCII output and the line size can be changed by giving a number from 1 to 32767. Give it a line length of 0 and hx will act as a pipe for modifying the output of another program.
USE: hx /d0/emds/program

AUTHOR: Peter Dibble

NAME: stripnum TYPE: text file processing LANGUAGE: BASIC09 SIZE: \$345

DESCRIPTION: Another self prompting program that strips the first "N" characters from the beginning of each line of text. The input file is not changed. Rather, a new output file is created to keep the original intact.

USE: stripnum <cr>
AUTHOR: Dave Kaleira.

NAME: striprem TYPE: text file processing LANGUAGE: BASIC09 SIZE: \$550 DESCRIPTION: Dave ha

DESCRIPTION: Dave has come up with another great program that removes the remarks from a BASIC09 source file. It too is self prompting and removes all REM statements from the input file and creates a new output file without them. It only works with REM type remarks. It does not recognize the format of (* *) Type remark statements.

USE: striprem <er>
AUTHOR: Dave Kaleita

NAMP: flexhin
TYPE: binary file processing
LANGUAGE: BASIC09
SIZE: \$538
DESCRIPTION: Flexbin converts Flexformat binary files into full image (full size)
binary files. It creates a new output file and
does not modify the input file.
USE: flexbin (self prompting)
AUTHOR: Dave Kaleits

NAME: newstrip
TYPE: file processing filter
LANGUAGE: BASIC09
SIZE: \$13F
DESCRIPTION: Newstrip removes all control characters except carriage returns from the standard input path.
USE: newstrip or newstrip file
AUTHOR: Dale Puekett

NAME: extract
TYPE: programming aid
LANGUAGE: C
SIZE: \$DB0
DESCRIPTION: This routine will filter a
single C function definition including
heading comments from a C source file and
will output to the standard output.
USE: extract file function name
AUTHOR: unknown

NAME: patch
TYPE: programming aid
LANGUAGE: C
SIZE: \$2708
DESCRIPTION: This program will change selected bytes in a file. Patch will ask for an address from which you can step through the next byte, go backwards, go to another address location, or modify the byte.
USE: patch program
AUTHOR: Eric Williams

TYPE: programming aid LANGUAGE: C SIZE: DESCRIPTION: This program is similar to Dump except that selected sectors are displayed as well as contents of directories. USE: intruder file AUTHOR: Eric Williams

Disk #6 Adventure Source

NAME: intruder

This disk contains all the the source code required to compile the adventure "Colosal Cave" into object form. It also contains all of the data text files used by the program. This set of code is so large the Users Group put it on a double sided disk. I had to use SDisk to read the disk because it was stored in standard OS-9 format. I have since copied it over to the Tandy OS-9 format (18

sectors per track double density). When this volume first came out, many people had problems reading the disk. However, the efforts of people like Dave Kaleita and Frank Hogg Laboratory helped to turn things around. I have had barely enough time to play the game let alone look through the code. It has been adapted to Microware C by J. Siefer. The original program, "Colosal Cave", was written by Willie Crowther and most of the current features were added by Don Woods. I can remember when I was going to college we use to play this game on a Burroughs mainframe computer. Oddly enough, the code was written in Foreran which is not suppose to be a string oriented language! Anyway, the source code is fantastic whether you are interested in adventure programming, learning about C, or you just want to find out how to win. You can compile this disk (although I have not tried on my Color

Computer) or you can just procure Disk #7, Adventure Program.

Disk #7 Adventure Program

I highly recommend this program to anyone who has or has not done some adventuring! It is exactly like the original "Colosal Cave" program I remember. If you have floppies, it becomes a little slow at times (even with 6ms stepping rate drives). I would highly recommend using a hard disk with this program (although I would not recommend buying a hard disk just for the purpose of playing this adventure a little faster). The disk is self documented for instructions on its use. You have to make sure that the data directory MtSC is in your current root directory. Unlike Disk #6, this program only requires a single sided 5 %" disk.

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Disk Size:	(5¼*)	(8")		
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Single Sided:			(80)	

binclose \$25 to cover the first year's membership in the form of a personal check or money order. Please allow approximately 3-5 weeks for processing your membership. The Users Group has a small staff, and applications are averaging 30 to 50 a week.

Shortly after acceptance of your application for membership, you will receive the current Group newsletter ("MOTD"), and soon after, the "starter" diskette, UG Disk # 0, with software of the type useful in getting you started with both OS-9 and the Users group, including a modern program to assist you with CompuServe access while under OS-9. Additional diskettes may be purchased at a cost of \$5 each to cover the cost of media and postage.

Mail your application and other correspondence to:

The OS-9 User's Group ATTN: (department) 9743 University Avenue Suite 330 Des Moines, LA 50322

Where (department) is President, MOTD Editor, Librarian, Membership, etc.

Membership dues can be charged to your VISA or MasterCard. Simply enter your card information below and sign this form.

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OS-9 Has Heros Too!

By Dale L. Puckett Director-at-Large

Publications — even technical newsletters like MOTD — serve people. And people — even hackers — are interested in people. Following this logic, we quickly realize that if we want you to read and enjoy MOTD, we need to write about people occasionally. This month we'll do just that as we salute a few OS-9 folk heroes.

Some people merely use OS-9 to run application programs. To them, our favorite operating system is only a means to an end - a tool that helps them get their job done. There is nothing wrong with this approach. In fact without these people, there would be no need for OS-

Yet, others serve our community above and beyond the call of duty. They spend untold hours designing and writing tools that help others do their job. Some are spending the time because the tools are needed — others are performing a labor of love, in any case, we all benefit.

The heroes of whom we speak this month come from the Color Computer Community. They are the people who are making our evolution from Microware's OS-9 Level I, Version 1.01 to Version 2.00.00 less painful.

Change almost always creates hassles and the world of personal computer software is not immune. That's why in some ways our current evolutionary process has not been paintess.

Excellent software like OS-9 is well documented and generally, if you follow a fixed set of rules, you can guarantee that your software will run on new versions of an operating system. But, sometimes the improvements required by a new version make it impossible to maintain 100 percent compatibility with an older version. We often have to give up a little to gain a lot. That's where our OS-9 heroes enter the picture.

Who then, are our heroes? Actually, there are several and most have provided

thin party support to the Color Computer versions of OS-9 since the beginning. Before we name them we want to take time to salute the members of Ken and Jeanne Kaplan's Color Computer OS-9 Team at Des Moines. Mark Hawkins, Tim Harris and Todd Earles did nothing less that an outstanding job.

When Tandy decided that they wanted Microware to do a new version of OS-9 early in 1985 these guys really dug in. They were thinking way past the Color Computer and viewed the job as an opportunity to introduce a brand new version of OS-9 for the 6809. Tandy Version 2.00.00 is the results.

When they were finished, Mark, Timand Todd had taken care of most of our complaints and had added a handful of utilities that really made life nice. Beginners will now find their transition into OS-9 much easier. Oldtimers however especially those of us who have added third party hardware to our trusty Color Computers - were in for a bumpier ride. The team's software fixes to hardware induced problems interfered with our third party hardware in several cases.

For example, one of the major problems surrounding the use of hardware external to the Color Computer revolves around the design of the Radio Shack expansion interface. Since OS-9 uses interrupts whenever possible, it needs to be able to receive interrupt signals directly from the hardware. With the expansion interface, this is only possible from one slot. Hardware plugged into other slots can not send an interrupt to the 6809.

To get around this problem, Microware's design team added a virtual interrupt, or VIRQ, capability to Color Computer OS-9. It improved the performance of the system immensely. But since VIRQs didn't exist until Version 2.00.00, the third party software drivers for third party hardware had to be redone.

Additional problems came from the limited memory of the Color Computer. As Mark Hawkins said at the Microward Seminar in Des Moines, "every time you add a new feature to an operating system, you sald a couple of lines of code

The price we paid in the Version 2.00.00 includes a complete redesign of CCIO, the device driver that talks to the Color Computer keyboard and screen. To make more memory available to high level language compilers like C and Pascal, the design team split CCIO into several parts. Only the parts that are needed are in memory at any one time. It works great and the compilers work better. But again we had to pay the price of inconvenience to third party hardware and software suppliers.

Yet, just as they have since OS-9 was made available on the Color Computer, several people stepped forwarded and solved the problems. And all things considered, they have done a tremendous

Ed Bender at PBJ is our first hero. Ed has handled the software chores for Al Alberto and the gang at PBJ since they first introduced the WordPak 80-column card several years ago. Since then he has written drivers for a new WordPak, a parallel port, a dual serial port and a hardware real time clock. All went well for several years - then came Version 2.00.00.

Users were shocked to find that Word-Pak didn't work with Version 2,00.00. Once you use an 80-column card, you don't like to go back to that 32-column screen. The phones in New Jersey rang. off the hook.

Ed dug out his Dynamire disassembler and went to work. After several weeks of hard study he broke the code and got hisnew drivers on-line. He received little or no support from the software folks at Tandy, which strikes me strange when

you consider that they now see Pile's Word Pak in their Express Order catalog.

But, when Bender got the WordPak drivers on line, the job wasn't finished. He still had to re-do the clock drivers and the parallel post drivers. Foctunately, since PBJ's 2SP dual serial port uses the same chip as the RS232 cartridge from Tandy, users could use the standard Color Computer /T2 device descriptor and Ed didn't have to rewrite it. Ed. Bender, we salute you.

Moving west to Porrland, Oregon, we meet our second hero — Dan Johnson of D. P. Johnson. Dan's fame in the OS-9 world comes from his introduction of his SDisk drivers soon after the Color Computer version of OSP9 was introduced.

CCDisk, the original device driver from Tandy, and the device descriptors that used it would only recognize a "standard" Color Computer OS-9 disk. This standard disk was single sided and only had 35 tracks. Dan came to the rescue and at last we could all read and write single and double sided as well as single, double and quad density disks with Color Computer OSP9. And, we could read and write both Radio Shack "standard" OS-9 disks and the "standard" disk written by all other OS-9 based computers. Happy Days were here again. - thanks to Dan Johnson, Salute!

Our last here of the month is Paul Searby at Computerware in California. We salure Paul for the tremendous speech he delivered at the OSP9 breakfast at Rainbowfest Palo Alto. But more importantly, we salute him for the continuous support he has given the Color Computer

OS-9 community.

Paul too, released a replacement for Tandy's CCDisk driver early in the game. It worked and worked well, And, Paul 100 had to rewrite that driver with the birth of Version 2.00.60. But rewrite it he did and he had it on the streets within a few weeks of the time the official Tandy disks reached the West Coast. The new version also works and works well. But only because of the tremendous effort poured into it by Paul and his software

We also salute Paul and the rest of the gang at Computerware for their innovation. Their Disk Fix, Utilities and Advanced Utilities packages really streamline our OS-9 operation. An example is the new KShell which comes in the new Advanced Utilities package. It emulates the Shell in OS-9 68K as closely as possible - hence its name. The addition of wild cards, macros and paths all adds up to smoother and more effective devel-

Dan, Ed and Paul - we salute you all. Thanks for taking the time and effort and for going that extra mile to make your products compatible with Version 2,00,00 so quickly.

And to our readers - the next time you order software from Dan, Ed and Paul or the many other third party suppliers who make OS-9 shine on the Color Computer — make sure you thank them personally. Let them know that you appreciate what they have done for us all.

But most importantly, let others know that you appreciate what our heroes had to go through. Tell them you hope that when future enhancements of Color-Computer OS-9 come on line our heroes will have had the benefit of an early release - or at least a very specific description that will let them prepare for the rush — before the new release hits the streets. You really shouldn't have to stay up all night disassembling someone elses code so you can help expand the use of their product.

If you have other heroes who you would like to see saluted in MOTD, send us their names. Till then, keep on hack-



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New Product!

CRASMB" CROSS ASSEMBLER NOW AVAILABLE FOR OS9/68000

LLOYD I/O announces the release of the CRASM8 8 Bit Macro Cross Assembler for Microware's OS9 disk operating system for the 68000 family of microprocessors. In recent increasing demand for the OS9:68000 version. of CRASMB, LLOYD I/O has translated its four year old CRASMB for the OS9/6809 and FLEX/ opdy to the castabout enviolationent

CRASMB supports assembly language software development for these microprocessors. 1802, 6502, 6800, 6801, 6303, 6804, 6805, 6809, 6811, TMS 7000, 8048 family, 8051 family, 8080/85, Z8, and the Z80 CRASMB is a full featured assembler with macro and conditional assembly facilities. It generates object code using 4 different formats: none, FLEX. Motorola S1-S9, and Intel Hex. Another format is available which outputs the source code after macro expansion, etc. CRASMB allows label (symbols) length to 30 characters and has label cross referencing options.

CRASM8 for OS9 68000 is available for \$432. in US funds only. It may be purchased with VISA/MASTERCHARGE cords, checks, US money orders, or US government (federal, state, etc.) purchase orders. NOTE: please add \$5 shipping in the USA and use your street address for UPS shipments. Add \$30 for all overseas orders. CRASMB for OS9/6809 and FLEX/6809 cost \$399 plus shipping.

You may contact Frank Hoffman at LLOYD I/O. 19535 NE Glisan, Portland, Oregan, 97230. Phone: (503) 666-1097. Telex: 910 380 5448, answer back: LLOYD LO. Easylink: 62846110. See list of distributors below:

USA UCCOO, CHRCKS ACCEPTED

USA UCCOO, CHRCKS ACCEPTED

Ingrand Verway (555 4314/5). \$1 MiDA (500.314.6800)

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DESKMATE

a review by Bruce N. Warner

Have you ever wondered what Color Computer owners had that other OS-9 users were missing? Then again, have you ever wondered what Tandy's MS-DOS users have that we Color Computer Owners are missing? The first answer is Color Graphics, and the answer to the second is DESKMATE. After more than two years of working with MS-DOS, I'm sold on the fact that there's nothing you can do in MS-DOS that can't be done better under OS-9.

Just recently, Tandy decided to put both of these features together. In doing so, they've come up with a whole new package for the Color Computer that is in the tradition of Tandy's dedication to OS-9. The program is DESKMATE, and it's a real bonus to any OS-9 user.

Until I got into the text editor, I found it necessary to read only one page of the DESKMATE manual. That was the one that told me how to switch from using the arrow keys to using a joystick (you start by using the Alt key, a new feature for Version 02,00.00). After that, I found that there are enough windowed help menus and prompts to make the remainder of using DESKMATE require almost no use of the manual. Everything from the appointment calendar (displayed in the upper left corner of DESKMATE's main menu) down to the Text Editor (shown in the lower right corner) uses the same addressing schemes. Help menus are available throughout.

DESKMATE comes with six functions. In addition to the two mentioned in the previous paragraph, there are: Ledger, Telecom, Index Cards and Paint (similar, but not as good as CoCo Max). We'll discuss each of these functions separately as well as their required hardware additions for complete use.

Calendar

If you've wanted a computer calendar that gives you complete access to any date, a display of the month the day falls in, a search by date or event (after programming a date, look for a key word in that event) and a printed copy of the calendar, DESKMATE is the program for you. All you need is a printer to use all of the features of calendar. It works flawlessly.

Start with opening the file and search for a starting date. After that, you need do nothing more than follow the prompts. The entire month you're looking at will be displayed with the specific date in reverse type. If you should choose to edit text for the day in question, you'll be delighted to know that it's very easy to use and requires little more than pressing the keys on your keyboard.

Calendar alone is worth at least 40% of the cost of the package (we'll add up the percentages later if Tandy promises not to raise the price).

Ledger

If you found Color Disk Spectaculator to be a functional program, you'll be glad to see it as a part of DESKMATE. It's not exactly the same as Spectaculator, but it's close enough to make you see the similarities in capabilities and limitations. The big difference is that the DESKMATE Ledger can address individual cells and it is part of a complete package.

Telcom

The DESKMATE communications package requires the Deluxe RS-232 pack, a multi-pak interface and a modem. On my system I use a SmarTEAM 1200 Baud Hayes compatible modem. The package works well and with the strip utility it is (run in this issue of the MOTD) it's a dream. My one disappointment is that the graphics screen slows down the data transfers.

Index cards

What makes a database so scary to the novice is the idea of what a database is. When I called up the index card function of DESKMATE, I was shocked to see that it is a small database. It has most of the functions needed by home computer users and it's in a format they understand. It doesn't have all of the integration functions, nor does it have all of the

WRITING FOR THE MOTD

Have you ever wanted to be an internationally known author? I remember as a kid (last week) wanting to be Superman, but knowing I'd never be able to bounce bullets off my chest I decided to settle for writing (Clark Kent).

You too can be a mild-mannered reporter for a growing international newsletter. It's easy! Just put down on disk what you're going through with your favorite OS-9 computer, and send the disk, along with a paper copy, to the Editor of the MOTD.

By the end of the year we'll be setting up to reimburse you for the disk and paper. As a users group, we think every member should contribute something to the group. Though we aren't paying for the submissions themselves, as the MOTD becomes more self-sufficient,

we'll help take the bite out of contributing.

So what do you write about? Anything you're doing. I've been asked if it's a good idea to write about interfacing external hardware devices and robot control. Another was about their solution to a BASICO9 problem, Another was about a problem with a vendor. The answer is yes, yes, yes, yes, and YES! If it's something other UG members should know about, it's something that needs to be told in the MOTD. That's what a users group new-sletter is for and about.

No one can say that I didn't warn you that this was coming. The dead horse is being beaten to death again, and I'll continue to do so until there's no room in my house for the excess copy!!!

fancy stuff we programmers like, but it's written for everyday users, not backers.

Paint:

They say a picture's worth a thousand words. The Paint utility of DESKMATE isn't the fanciest thing I've ever seen, but it sure gets the job done, and under OS-9. This utility is only lacking in the fact that we true OS-9ers aren't into a lot of graphics. That's not to say that I didn't have fun playing with Paint, it's just not a requirement for my programming needs. The one nice thing is that it does its job well.

Overview

There are two ways to look at the DESKMATE package. You can look at it like a true hacker, in which case it lacks a lot, or you can look at it like a typical Color Computer OS-9 user, in which case, it's a nice, friendly package that gives you all you need to use your Color Computer in some meaningful fashion.

My recommendation is that if you are a heavy OS-9 user, DESKMATE will fall short of your needs, but if you're a newer user, DESKMATE may be all the OS-9 software you'll ever need.

OS-9 Users Group Software Library Volumes - 01/29/86

No.	Dor	oc? Title:		Format;	Who
0.05	Y	New Member Intro		*** (40 track, ss)	DK
1.00	Y	Spelling Checker		(35 track, ss)	DX
2.00	Y	Spelling Dictionary		(40 track, da)	DK
3.01	'n	Word Processing Units		+++ (35 track, ss)	DK
4.01	'n	Programming Utilities		+++ (35 track, 33)	DK
5.00	Y	File Processing Utils		+++ (35 track, 45)	DK
6.02	Y	Adventure Game (source)		(40 track, ds)	CK
7.02	Y	Adventure Game (object)		(40 track, ss)	CK
8.00	Y	General Interest (demo, gas	nes, finance)	(35 track, ss)	CK
9.00	Y	C Programmer's Tool Kit		(35 track, ss)	CK
10.00	Y	Math & Electronics i		(35 track, ss)	GĐ
11.00	Y	Word Processing Utils	(disk #2)	(35 track, 55)	CK
12.00	Υ	Programming Utilities	(disk #2)	(35 track, sa)	CK
13.00	Y	File Processing Utils	(disk #2)	(35 track, ss)	CK
14,02	Y	File Maintenance	,	(35 track, ss)	CK
15.01	Y	Communication		(35 track, ss)	CK
16.00	Y	Hardware Customizations		(35 track, ss)	CK.
17.00	Y	Basic09 Programmer's Tool		(35 track, ss)	CK
19.00	¥	System Utiliffee Languages 1: XLisp (source		had bear house	(1) 10
20.00	Ý	XLisp (object)	:)	(40 track, ds)	CK
21.00	Ý	File maintenance	ALCOHOLOGIC	(35 track, ss)	DK
22.00	Ý	Programming Utilities	(disk #2) (disk #3)	+++ (35 track, ss)	CK.
23,00	Ý	File Processing Utils	(disk #3)	(35 track, ss)	CK
24,00	Ý	General Interest	(disk #2)	(35 track, sa)	CK
25.00	Y	Word Processing Utils		(35 treek, sa)	CK
26.00	¥	C Language Math Library	(disk #3)	(35 treek, ss)	CK
29.00	Ý	File Maintenance	(disk #3)	(35 track, ss) (35 track, ss)	CK CK
30.00	ý	File Processing Utils	(disk #4)	4	
31.00	Ý	Hardware Customizations	(disk #2)	(35 track, ss)	CK CK
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34.00	Ý	Hardware Customizations	(disk #4)	(35 track, ss)	
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36.00	Ÿ	General Interest	(disk #3)	(35 track, ss) (35 track, ss)	CK
37.00	Ý	Communication	(disk #2)		CK
38.00	Ŷ	Programming Utilities	(disk #4)	(40 track, ds)	CK
39.00	Ý	Communication (Morse)	(disk 44) (disk 43)	(35 track, ss)	CK
40.00	Y	System Utilities	(disk #4)	(40 track, ds)	CK
42.00	Y	Coco Graphics	(4328 44)	(35 track, ss)	CK
a minh	r	coco Orapues		(35 track, ss)	CK

NOTES: 1) Above formats describe STANDARD (non-CoCo) versions and are single-deasity.

- All of the completed volumes are available in TRS-80 Color Computer format (dd, 18 sectors/track, etc.)
- *** For these volumes to fit in the specified format, the disk is created with a default sector allocation of I sector per directory (made by doctoring the "segment allocation size" byte (offset \$20) in the device descriptor of the drive on which the master disk is made).

Orders can be made by mail or through the online services of DELPHI and CompuServe. Payment is required in advance by check, money order, VISA or Master Card.

Last Name		44	First	Initial
Street Address				
City		7.3 34 7	_ State	Zip
OS-9 Disk Format			Form of p	ayment
Disk No. 5° Archive Set	Qty.	Cost \$5.00 \$5.00 \$5.00 \$5.00 \$70.00	Amount	
If paying by credit	card enjo	er the following:		
Card type: VISA	١	MasterCard		
Account #:		<u> </u>		ap. Date
Signature				

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                                                    get buffer address
        0104 3420
00094
                                  pshs Y
                                                    add size to beginning address
00095
        01D6 E3E1
                                  addd
                                        , S++
                                                    /to calculate beginning output
00096
        01D8 DD02
                                  std
                                        BUFFTR
                                                    save output buffer address
        OlDA OF07
                                  elr
00097
                                                    "-c" option flag
                                        HINUSC
86000
        Oldc OFO8
                                                    "-l" option flag
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00099
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00100
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                                        PLUSB
                                                    "+b" option flag
00101
        OlE2 OFOB
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                                        PLUSD
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00102
        01E4 0F06
                                  c1r
                                        ORDER
                                                    clear parameter order counter
00103
        Ole6 OFOC
                                  clr
                                        FLAG
                                                    clear flag
        Oles OFOF
00104
                                  clr
                                        STRPCNT
                                                    clear strip count
00105
        Olea OF10
                                  clr
                                        STRPGNT+1
                                                    1
00106
             <del>Skrámánáná</del>
00107
             * Parse for options
00108
00109
        01EC A680
                         STRIPO2 1da
                                         , X+
                                                    Parse parameters
                                                    save in both A and B
00110
        01EE 1F89
                                   tfr
                                        A, B
        01F0 812D
00111
                                        # 1 -
                                                    Start of minus parameter?
                                  стри
00112
        01F2 2712
                                        STRIPO3
                                                    yes process it
                                  peq
00113
        01F4 812B
                                  спра
                                        #'+
                                                    Start of plus parameter?
00114
        01F6 2730
                                  psd
                                        STRIPO5
                                                    Yes, go process it.
00115
        01F8 B13F
                                                    Relp message request?
                                  спра
                                        # 17
00116
        01FA 275E
                                        STRIPO6
                                   peq
                                                    Yes, go process it.
        OlfC ClOD
00117
                         STRIP07
                                  cmpb
                                        #C$CR
                                                    End of line?
00118
        01FE 276A
                                         STRIP20
                                                    no, keep looking
                                  beq
00119
        0200 C120
                                        #C$Spac
                                                    delimiter?
                                   cabp
00120
        0202 27E8
                                  beq
                                        STRIP02
                                                    yes, continue
00121
        0204 2064
                                        STRIP20
                                                    No more options
                                  bra
             And Andrew
00122
00123
             * Handle "-c or -l" options
00124
00125
        0206 EC84
                         STRIPO3 1dd
                                         , Ж
                                                    get the option char
                                        #101011111 mask off lower case
00126
        0208 845F
                                  anda
                                  cmpa #C$ASCC
00127
        020A 8143
                                                    C option?
        020C 260A
00128
                                  bne
                                        STRIP04
                                                    .. no, not this option
00129
        020E 0006
                                        ORDER
                                  inc
                                                    increment order counter
                                        OPDED.
                                                    get order counter
00130
        0210 9606
                                  Let
00131
        0212 9707
                                        MINUSC
                                  sta
                                                    set carriage return flag
00132
        0214 3002
                                  leam 2,x
                                                    edjust parameter pointer
001,33
        0216 20E4
                                   bra
                                         STRIPO7
                                                    Look for more parameters
        0218 EC81
00134
                         STRIPO4 1dd
                                         \mathbf{x} + \mathbf{x}
                                                    get option char
        021A 845F
00135
                                  anda #%01011111 mask off lower case
00136
        021C 814C
                                        #C$ASCL
                                                    L option?
                                   cmpa.
00137
        021E 263A
                                  bne
                                         STRIPO6
                                                    .. no, not this option
001,38
        0220 0006
                                   inc
                                         ORDER
                                                    increment order counter
        0222 9606
00139
                                  lda
                                        ORDER
                                                    get order counter
00140
        0224 9708
                                   sta
                                        MINUSL
                                                    set line feed flag
00141
        0226 2004
                                        STRIP07
                                                    Look for more parameters
                                  bra
00142
             ****
00143
             * Handle "+1 , +b or +d" options
00144
        0228 EC84
00145
                         STRIPO5
                                  ldd
                                         \mathbf{x}
                                                    Get the option character
                                  anda #$01011111 mask off lower case
00146
        022A 845F
00147
        022C 814C
                                   cmpa #C$ASCL
                                                    L option?
00148
        022E 260A
                                        STRIP08
                                  bne
                                                    .. no, not this option
        0230 0006
00149
                                  inc
                                        ORDER
                                                    increment order counter
00150
        0232 9606
                                  lda
                                         ORDER
                                                    get order counter
00151
        0234 9709
                                        PLUSL
                                  sta
                                                    set line feed flag
        0236 3002
00152
                                  leax 2,X
                                                    adjust parameter pointer
00153
        0238 20C2
                                        STRIPO7
                                  bra
                                                    Look for more parameters
00154
        023A EC84
                         STRIPO8
                                  1dd
                                         ,X
                                                    get option char
                                  anda #%01011111 mask off lowwer case
00155
        023C 845F
00156
        023E B142
                                   cmpa #C$ASCB
                                                    B option?
00157
        0240 260A
                                  bne
                                        STRIP09
                                                    ... no, not this option
00158
        0242 0006
                                         ORDER
                                   inc
                                                    increment order counter
00159
        0244 9606
                                  1da
                                        ORDER
                                                    get order counter
00160
        0246 970A
                                                    set back space flag
                                        PLUSB
                                   sta
00161
        0248 3002
                                  leax 2.X
                                                    adjust parameter pointer
        024A 20B0
00162
                                        STRIPO7
                                                    Look for more options
                                  bra
00163
        024C EC81
                         STRIPO9
                                  1dd
                                         ,X++
                                                    get option char
        024E 845F
00164
                                        #101011111 mask off lowwer case
                                  anda
00165
        0250 8144
                                        #C$ASCD
                                  cmpa
                                                    D option?
00166
        0252 2606
                                        STRIPO6
                                  bne
                                                    option not found
00167
        0254 86FF
                                  1da
                                         #$FF
                                                    get order counter
        0256 970B
00168
                                        PLUSD
                                                    set display flag
                                  sta
        0258 20A2
00169
                                  bra
                                        STRIP07
                                                    Look for more options
00170
             有有的的表
00171
             * Give help message on error
```

```
00172
00173
        025A 8602
                          STRIPO6
                                  1da
                                                     setup for standard error outpu
                                         #2
00174
        025G 308DFDB3
                                         STRPUSE, PCR get help message location
                                   leax
00175
        0260 108E0169
                                          #STRPSIZ
                                                     get help message size
00176
        0264 103F8C
                                          ISWrithn
                                   059
                                                     give message
00177
        0267 160165
                                   lbra
                                         STRIP98
                                                     Exit
00178
              ****
              * Do the strip
00179
00180
        026A 30G90250
                         STRIP20
                                   leax BUFBEG, U
                                                     Get the buffer address
00181
        026E 109E00
                                   1dy
                                         BUFSIZ
                                                     Get the buffer size
00182
        0271 8600
                                   1da
                                         #0
                                                     Get standard input path
00183
        0273 103F89
                                         I$Read
                                   059
                                                     Read from standard input
00184
        0276 2409
                                   bec
                                         STRIP25
                                                     Encounter an error during READ
00185
        0278 C1D3
                                   empb #ESEOF
                                                     Yes. Was it an EOF?
00186
        027A 10270136
                                   1heq STRIP97
                                                     Exit
00187
        027E 16014F
                                   lbra
                                         STRIP99
                                                     No. Exit with error code.
00188
        0281 3420
                          STRIP25
                                         Y
                                   pshs
                                                     save transfer size
00189
        0283 1F10
                                   tfr
                                         X,D
                                                     move input buffer pointer to D
        0285 E3E1
00190
                                   addd
                                         , S++
                                                     add input buffer pointer to re
00191
        0287 DD04
                                         BYTCHT
                                   std
                                                     Update the buffer size count.
00192
        0289 109E02
                                   1dy
                                         BUFFTR
                                                     get output buffer pointer
00193
        028C A680
                          STRIP26
                                   lda
                                          ,X+
                                                     get character
00194
        028E 847F
                                         #%01111111 mask off bit 7
                                   anda
00195
        0290 8120
                                   cmpa
                                         #C$Spac
                                                     compare to space
00196
        0292 2437
                                   bhs
                                         STRIP27
                                                     branch if not control code
00197
        0294 $10D
                                   cmpa
                                         #C$CR
                                                     is character a carriage return
00198
        0296 260D
                                         STRIP36
                                   bne
                                                     ..no, branch
00199
        0296 OD07
                                         HINUSC
                                                     minus carriage return option?
                                   tst
00200
        029A 274A
                                         STRIP29
                                   beq
                                                     no, skip
00201
        029C 1700A1
                                   1bsr STRIF39
                                                     display character
00202
        029F 1025012D
                                         STRIP99
                                   lbcs
                                                     branch if error
00203
        02A3 2041
                                         STRIP29
                                                     continue
00204
        02A5 B10A
                          STRIP36
                                   cmpa
                                         #C$LF
                                                     is character a line feed?
00205
        02A7 260D
                                   bŋø
                                         STRIP37
                                                     .. no, branch
        02A9 0D08
00206
                                                     minus line feed option
                                         MINUSL
00207
        02AB 2739
                                         STRIP29
                                   beq
                                                     no, skip
        02AD 170090
002.08
                                   lbsr STRIP39
                                                     display character
00209
        02B0 1025011C
                                                     branch if error
                                         STRIP99
                                   lbcs
00210
        0284 2030
                                         STRIP29
                                   bra
                                                     continue.
00211
        0286 8108
                          STRIP37
                                   cmpa
                                         #C$B$
                                                     is character a back space?
                                   ODS
                                                      .no, oranch
00213
        028A 170083
                                  , lbsr STRIP39
                                                     display character
00214
        02BD 1025010F
                                   1bcs STRIP99
                                                     branch if error
00215
        02C1 2025
                                   bra
                                         STRIP30
                                                     continue
00216
        02C3 8D7B
                          STRIP38
                                   bsr
                                         STRIP39
                                                     display character
00217
        02G5 10250107
                                         STRIP99
                                   lbcs
                                                     branch if error
00218
        0209 2002
                                         STRIP28
                                   bra
                                                     continue
00219
        02CB A7A0
                          STRIP27
                                   sta
                                          , T+
                                                     sava character in output buffe
00220
        02CD 9C04
                          STRIP28
                                         BYTCNT
                                   CEDT
                                                     last cheracter in input buffer
00221
        02CF 26BB
                                         STRIP26
                                   bne
                                                     no look for more characters
00222
        02D1 9E02
                                   1dx
                                         BUFFTR
                                                     get output buffer pointer
00223
        02D3 3410
                                   pshs
                                         X
                                                     save on stack
00224
        02D5 1F20
                                         Y, D
                                   tfr
                                                     transfer output buffer pointer
00225
        02D7 A3E1
                                   subd
                                         ,5++
                                                     claculate output buffer size
00226
        02D9 1F02
                                   tfr
                                         D, Y
                                                     transfer size to Y
00227
        02DB 8601
                                                     setup for standard output
                                   1da
                                         #1
        02DD 103F8A
00228
                                   059
                                         IŞWrite
                                                     write output buffer
00229
        02E0 102500EC
                                   lbcs
                                         STRIP99
                                                     branch if error
00230
        02E4 2084
                                         STRIP20
                                   bra
                                                     get next buffer
00231
                         STRIP29
        02E6 A7A0
                                          , Y+
                                                     save carriage return or line f
                                   sta
00232
        02E8 0F06
                         STRIP30
                                         ORDER
                                   clr
                                                     clear parameter order counter
00233
        02EA 0C06
                         STRIP31
                                   inc
                                         ORDER
                                                     increment order counter
00234
        02EC D606
                                   ldb
                                         ORDER
                                                     get order counter
00235
        02EE D107
                                   empb MINUSC
                                                     C option next?
        02FO 270E
00236
                                         STRIPC
                                   beq
                                                     ..yes, branch
00237
        02F2 D108
                                   cmpb MINUSL
                                                     L option next?
00238
        02F4 2724
                                   baq
                                         STRIPL
                                                     ..yes, branch
00239
        02F6 D109
                                   cmpb PLUSL
                                                     L option next?
                                                     ..yes, branch
00240
        02F8 2726
                                   beq
                                         ADDL
00241
        02FA D10A
                                   cmpb PLUSB
                                                     B option next?
00242
        02FC 272G
                                         ADDB
                                   beq
                                                     ..yes, branch
00243
        02FE 20CD
                                         STRIP28
                                   pra
                                                     .. done, get next character
00244
        0300 810D
                         STRIPC
                                   cmpa #C$CR
                                                     is character a carriage return
00245
        0302 272A
                                         ADDB1
                                   beq
                                                     .. yes, adjust output buffer po
00246
        0304 B10A
                                   cmpa #C$LF
                                                     is character a line feed?
00247
        0306 26E2
                                         STRIF31
                                   bne
                                                     .. no, get next option
00248
        0308 313E
                                   leay -2, Y
                                                     get charcter before line feed
00249
        030A A6A4
                                   lda
                                         Y
00250
        030C 810D
                                   cmpa #C$CR
                                                     is character a carriage return
00251
        030E 2704
                                         STRIPC1
                                   beq
                                                     .. yes, strip carriage return
00252
        0310 3122
                                   leay 2, T
                                                     adjust output buffer pointer
00253
        0312 20D6
                                         STRIP31
                                   bra
                                                     get next option
00254
        0314 860A
                         STRIPCL
                                                     save line feed over carriage r
                                   lda
                                         #C$LF
```

	00255	0316	A7A0		sta	. Y+	/
	00256	0316	20D0			STRIP31	get next option
	00257	031A	810A	STRIPL	cmpa.	#C\$LF	is character a line feed?
	00258	031C	26CC		bne	STRIP31	no. get next option
	00259	031E	200E		bra	ADDB1	yes, adjust output buffer po
	00260	0320	810D	ADDL	cmpa	#G\$GR	is character a carriage return
	00261	0322	2606		bne	STRIP31	no, get next option
	00262	0324			lda	*C\$LF	get line feed
	00263	0326			sta	, Y+	save in output buffer
	00264	0328			bra	STRIP31	get next option
	-			+ D.D.D.		#C\$BS	is character a back space?
	00265	032A		ADDB			_
	00266	032C			bne	STRIP31	no, get next option
	00267		109602	ADDBl	стру	BUFPTR	is output buffer pointer at be
	00268	0331	27B7		ped	STRIP31	yes, get next option
	00269	0333	313F		1eay	-1.Y	back up output buffer pointer
	00270	0335	A6A4		lda	Υ.	get deleted character
	00271	0337	8D07		bsr	STRIP39	display character
	00272		10250093		1bcs	STRIP99	branch if error
	00273	033D			clra		clear character
		033E			bra	STRIP31	get next option
	00274			CONTROL			save character
	00275	0340		STRIP39	pshs	A, X, Y	
	00276	0342			1db	STRPCNT+1	get strip count
	00277	0344			addb	#1	increment
	00278	0346	D710		stb	STRPCNT+1	restore
	00279	0348	DEOF		ldb	STRPCNT	get second byte
	00280	034A			adcb	#0	add carry from first byte
	00281	0340			stb	STRPCNT	restore
	00282	034E			tst	PLUSD	display stripped characters?
	00282	0350			beq	STRIP41	no, skip
					_		first character?
	00284		ODOC		tst	FLAG	
	00285	0354			bne	STRIP40	no, skip
	00286	0356	3402		pshs	A	save registers
	00287	0358	8602		lda	#2	setup for error output
	00288	0.35A	9700		sta	FLAG	set flag
	00289	035C	308 OFE1C		leax	STRIPD PCR	get 'stripped' message
	00290	0360	108E0017		ldy	#STRPDSZ	get message size
	00291		103F8C		059	ISWritin	give message
	00292		3502		puls	A	restore registers
					bes	STRIP42	branch if error
	00293		251D			PESE	Alephay character
	00295	036D	2019		bra	STRIP42	
	00296		3402	STRIP40			continue
	00297		8602	SIRIFAU	pshs	A.	save registers
					lda	#2	setup for error output
	00298		3080FE38		leax	SEP, PCR	get ',' message
	00299		108E0002		ldy	#SEPS2	get message size
	00300		103F8A		089	I\$Write	give message
	00301	037E	3502		puls	A	get registers
	00302	0380	2506		bes	STRIP42	branch if error
	00303	0382	8007		bsr	DISP	display character
	00304	0384	2002		bra	STRIP42	exit with error
	00305		1CFE	STRIP41			
	00306		3532				clear error flag
				STRIP42	_	A,X,Y	restore character
	00307	038A			rts		
	00308		1F89	DISP	tfr	A,B	save character
	00309	038D			lsra		right justify character
	00310	038E	44		lsra		/
	00311	038F	44		1sra		1
	00312	0390			lsra		1
	00313		8109		cmpa	#9	character over 9?
	00314		2302		bls	DISF1	
	00315	0395					no, skip
				DTCD1	adda	#7	add offset
	00316	0397		DISP1	adda	#\$30	convert to ASCII
	00317	0399			sta	CHAR	save character in output strin
	00318	0398			andb	#%00001111	get lower nibble
	00319	039D			cmpb	#9	character over 9?
	00320	039F	2302		b1s	DISP2	no, skip
	00321	03A1	0807		addb	#7	add offset
MOTO SEPEMBER 1986	00322	03A3		DISP2	addb	*\$30	convert to ASCII
PAGE &	00323	03A5			stb	CHAR+1	
			8E000D		1dx	#CHAR	save character in output strin
- 121 M 14	00324						get character string
LEAX CHARUL ->	00324		This is to the table of		ldy	#2	setup for 2 characters
LEAX CHARUL ->	00325	03AA	108E0002		1.4		•
- 121 M 14	00325 00326	O3AA O3AE	8602		lda	#2	setup for error output
LEAX CHARUL ->	00325 00326 00327	03AA 03AE 03B0	8602 103F8A		1da 059		•
LEAX CHARUL ->	00325 00326 00327 00328	O3AA O3AE	8602 103F8A			#2	setup for error output
LEAX CHARUL ->	00325 00326 00327 00328 00329	03AA 03AE 03B0	8602 103F8A 39		059	#2	setup for error output
LEAX CHARUL ->	00325 00326 00327 00328	03AA 03AE 03B0	8602 103F8A 39		059	#2	setup for error output
LEAX CHARUL ->	00325 00326 00327 00328 00329	03AA 03AE 03B0	8602 103F8A 39		059	#2	setup for error output
LEAX CHARUL ->	00325 00326 00327 00328 00329 00330 00331	03AA 03AE 03B0 03B3	8602 103F8A 39 ***** * Exit	STRIPO7	059 rts	#2 I\$Write	setup for error output write string
LEAX CHARUL ->	00325 00326 00327 00328 00329 00330 00331 00332	03AA 03AE 03B0 03B3	8602 103F8A 39 ***** * Exit * 8602	STRIP97	059 rts	#2 I\$Write #2	setup for error output write string setup for error output
LEAX CHARUL ->	00325 00326 00327 00328 00329 00330 00331 00332 00333	03AA 03AE 03B0 03B3 03B4 03B6	8602 103F8A 39 ***** * Exit * 8602 308DFDD9	STRIP97	OS9 rts lda leax	#2 I\$Write #2 TERH, PCR	setup for error output write string setup for error output get Terminate message
LEAX CHARUL ->	00325 00326 00327 00328 00329 00330 00331 00332 00333	03AA 03AE 03B0 03B3 03B4 03B6 03BA	8602 103F8A 39 ***** * Exit * 8602 308DFDD9 108E001C	STRIP97	OS9 rts lda leax ldy	#2 I\$Write #2 TERM, PCR #TERMSIZ	setup for error output write string setup for error output
LEAX CHARUL ->	00325 00326 00327 00328 00329 00330 00331 00332 00333 00334 00335	03AA 03AE 03B0 03B3 03B4 03B6 03BA 03BE	8602 103F8A 39 ***** * Exit * 8602 308DFDD9 108E001C 103F8G	STRIP97	OS9 rts lda leax ldy OS9	#2 #2 #2 TERM, PCR #TERMSIZ I\$Writin	setup for error output write string setup for error output get Terminate message
LEAX CHARUL ->	00325 00326 00327 00328 00329 00330 00331 00332 00333	03AA 03AE 03B0 03B3 03B4 03B6 03BA	8602 103F8A 39 ***** * Exit * 8602 308DFBD9 108E001C 103F8C 250D	STRIP97	OS9 rts lda leax ldy	#2 I\$Write #2 TERM, PCR #TERMSIZ	setup for error output write string setup for error output get Terminate message

00338	0305	8DC4		bsr	DISP	
00339	0307	2507		bes	STRIP99	
00340	0309	9610		lda	STRPCNT+1	
00341	03CB	8DBE		bsr	DISP	
00342	03CD	2501		bas	STRIP99	
00343	03CF	5F	STRÍP98	clrb		Return no errors
00344	03D0	103F06	STRIP99	OS9	F\$Exit	Terminate
00345	0303	430640		emod		Module CRC
00346	03D6		STPEND	equ	*	
00347				end		
00000	error(:	s)				
00000	warming	g(s)				

WHAT'S NEW FROM DESMOINES?

A look at the CompuServe OS-9 conference call with Ken Kaplan

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THE FOLLDWING IS AN EDITED TRANS-CRIPT OF PARTS OF THE OS9 SIG'S CONFERENCE WITH MICROWARE, THE INVENTORS OF OS9. SPEAKING FOR 'MICROWARE' IS KEN KAPLAN, PRESIDENT, AND ANDY BALL, VICE PRESIDENT OF MARKETING.

OUR GUESTS, ARE KEN KAPLAN, PRESIDENT OF MIEROWARE, THE INVENTORS OF OSS. AND HIS VP OF MARKETING, ANDY BALL, LET'S START BY LETTING KEN AND ANDY SAY ANYTHING (LEGAL HE HE) THAT THEY WISH. KEN OR ANDY?

MICROWARE HI EVERYDNE!

WELL, THAT WAS CERTAINLY ILLUMI-NATING! (HE HE) KEN, ID STAVE DFF A FEW QUESTIONS FROM PEDPLE NOT FAMILIAR WITH OSS, WOULD YOU CARE TO GIVE US A BRIEF HISTORY OF OSS, AND A BRIEF OUTLINE DF JUST WHAT THE HECK OSS IS? MICROWARE IN 10,000 WDRDS OR LESS (HE HE)?

WELL. I KNOW MANY WILL ASK IHDSE QUESTIONS, SD IT MAY SAVE TIME ____

HOW ABOUT 50 WORDS?

MICROMARE OK. OS-9 WAS ORIGINALLY WRITTEN IN 1979 FOR MOTORDLA FOR THE 6809 MPU. IN 1980 WE STARTED DN A 68K VERSIDN OS-9 THAT HAS BECOME WIDELY USED IN A GREAT VARIETY OF APPLICATIONS BECAUSE IT'S SMALL, FAST, REAL TIME, MULTITASKING, ROMABLE, ETC.

BDB M. DK . . . WE HEAR A LOT ABOUT DS-9 LEVEL 2 AND I WONDERED JUST WHAT IS DIFF. BTW LEVEL 1 AND 2. I KNOW LEVEL 2 WITH THE RIGHT HARD-WARRE CAN ACCESS A LOTTIT DE RAM. BUT IS THIS>>> A LEGAL COMMAND UNDER DS-9 LEVEL 2.

OS9:EDIT /D0/MYFILE #120K***** (GA)

MICROWARE EACH PROCESS IS LIMITED TO 64K - BUT YOU CAN HAVE MORE MEMOR Y MODULES PRE-LOADED IN RAM WHICH CAN BE QUICKLY LINKED AND UN-LINKED. 64K - CAN'T GET ARDUND A 16 BIT PC REGISTER IN SOFTWARE (GA)

GEDRGE B. KEN, DS-9 AND OS-9/60000
15 THE GREATEST THING SINCE SLICED
BREAD BUT THE LANGBUGE COMPILERS
ARE SO BLODDY EXPENSIVE THAT US
""MACKER" CAN'T AFFORD TO GET
THEM IS THERE CHANCE OF SDME KIND

OF PRICE BREAK FOR ""PERSONAL"" USE COMPILERS?? (GA)

\$03D6 00982 program bytes generated \$1000 04096 data bytes allocated \$26A4 09892 bytes used for symbols

MICROWARE THAT'S A PROBLEM BE-CAUSE MOST OF DUR 69% CUSTOMERS ARE INDUSTRIAL AND THE LO-COST PER-SONAL COMPUTERS AREN'T OUT YET. BUT ITHINK WHEN THEY ARE AVAILABLE THEY'LL BE AFFORDABLE. INCLUDING LAMGAUGES. (GA)

GEORGE B. WELL, I SORTA ECHSIDER MY UNIQUAD ''LDW PRICED'' RELATIVELY SPEAKING

DAVE Y. WILL THE ATARI ST VERSION REFLECT TRAMEIL'S PHILOSOPHY DF ''POWER WITHOUT THE PRICE''. (MEANING LOW COST), AND WHEN WILL IT BE RVAILABLE? (GA)

MICROWARE AFRAID I DON'T KNOW THE EXACT \$5\$ AND DATE YET, PARTLY BECAUSE ANOTHER COMPANY IS DEVELOPING THIS VERSION. BUT I THINK THERE WILL BE AN OFFICIAL ANNOUNCEMENT IN JANUARY. (GA)

DAVE Y, THANKS. THERE'S ABOUT 50K STUSERS NOW, 100K BY THE END OF THE YEAR (ESTIMATED). THAT'S A POTEN-TIALLY HIGH MARKET IF THE PRO-JECTED SALES MATCH ACTUAL.

MICROWARE I'LL ADD TO THAT, DAVE. PRICE WILL BE BETWEEN \$100 AND \$500, AVAILABLE BETWEEN MARCH AND MAY, "C" AND AT LEAST 1 OTHER LANGUAGE WILL BE INCLUDED. SORRY IF THAT'S NOT SPECIFIC ENDUGH, BUT IT'S EARLY IN THE GAME!...

MARTIN TORRES IHANKS, WILL THE TOWERS IN FT WORTH CONTINUE TO SUPPORT US, WITH OTHER MANUFAC-TURERS ON LINE TOD AND IF SO, WILL THERE BE CROSS MECHINE COMPATI-BILITY? (GA)

MICROWARE PLEASE UNDERSTAND THAT I CAN'T SPEAK FOR THEM OR THEY MAVEN'T ANNOUNCED YET. BUT PER-SONALLY SPEAKING, I THINK THAT THE NUMBER OF 05-9 SOFTWARE PACKAGES THEY'VE RELEASED IS AN INDICATION OF VERY STONG SUPPORT, AND I THINK THEY'D BE CRAZY TO ABAMDON. ALL THOSE LOYAL COCO OWNERS OUT THERE. AS FOR "'CRDSS MACHINE COMPATI-BILLITY' I'VE ALREADY TAKEN BI-NARIES FROM A GIMIX UNDER LEVEL II. AND DOWNLOADED THEM TO A COCO. WORK PERFECTLY! AND FOR ANOTHER EXAM-PLE, YOU'LL GE ABLE TO TAKE A BI-NARY FROM SAY, AN 18M PC. DOWNLOAD IT TO AN STOR AMIGA, AND EXECUTE IT IMMEDIATELY, THAT HELP? (GA)

MARTIN TORRES SORRY, AS A USER OF

THE OTHER OS. (THE SLOW ONE THAT BEGINS WITH "M""), A FUTURE WITH OS9/059-60K WOULD SURE BE BETTER. THE AGAIN (EMD)

MIEROWARE THANKS, MARTIN. I THINK YDU'LL BE PLEASANTLY SUPRISEO (GA)

EHAS AKEN CAN YOU TELL US ANY THING ABOUT TANOYS RUMORED LEVEL II MACHINE GA

MICROWARE SORRY. CAN'T COMFIRM OR DENY. I THINK YOU CAN IMAGINE WHY. (GA)

EHAS A DK HOW ABOUT TELLING US THE OJFFERENCES BETWEEN OSS LEVEL 2 AND 059/68000 GR

MICROWARE 1. 16 MB MAX MEMDRY PER TASK/SYSTEM VS. 2M8/ 64K . . .

MICROWARE 2. MORE ADVANCED SHELL AND UTILITIES . . . (16MB IS 60000, 2MB ISLEVEL II)

MICROWARE 3. MORE REAL-TIME FUNC-TIDNS.

MICROWARE 4. MANY OTHER IMPROVE-MENTS THROUGHOUT. (GA) (#'S 2, 3, 4 DESCRIBE 059/68000)

CHAS A KIND OF MAKES YOU WONDER WHY ONE SHOULD WAIT . .

MICROWARE OS-9/68K IS ESSENTIAL A SUPERSET DF OS-9/6809.

EHAS A FOR A LÉVEL II MACHINE FROM TANDY WHEN OTHERS ARE COMMING DUT WITH 68000 MACHIES OUT

THANK YOU, CHAS. THAT'S A DECISION ONLY YOU CAN MAKE. WE DON'T CARE WHAT COMPUTER YOU BUY. AS LONG AS IT RUNS OS91 (HE ME . . . UH OH).

MICROWARE THERE WILL ALWAYS BE A BETTER MOUSETRAP BUT ALL TEND TO CATCH MICE.

CHAS S. I'M CURIOUS ABOUT THE DS9 USER BASE IS OS9 MORE POPULAR IN JAPAN THAN IN THE USA? GA

MJCROWARE IN TERMS OF VISIBILTY (800KS, ARTICLES, ETC) IT IS MORE SO IN JAPAN BUT IN RESOULTE NUMBER THE US IS BIGGER. (GA)

CHAS S. WHAT IS THE PERCENTAGE OF INDUSTRIAL USERS IN THE USA VS. PERSONAL USERS GA (END)

MICROWARE ABOUT : PERSONAL AND & INDUSTRIAL, IN JAPAN IT'S ABOUT 50-50. (GA)

JEFF S. KEN. WITH DETICAL DISK

TECHNOLOGY ON THE MORIZON ARE THERE ANY CAPACITY LIMITATIONS OF OS9/68K 2 AND WHAT ARE THE PLANS (TEANY) FOR VIRTUAL MEMORY IMPLE-MENTATIONS? GA

MICROWARE JEFF. (1) NO LIMITA-TIONS...(2) A 6BK VM VERSION WAS PLANNED EVENTUALLY, HOWEVER, THE RAPID DROP IN DRAM COST MAY CHANGE THAT. WHY USE A SLOW IMITATION (DISK VM) OF THE REAL THING (RAM) ... IF THE COST IS ABOUT THE SAME? (GA)

JEFF S. WELL, WE CAN DEBATE THE PRD'S OF VM VS REAL RAM LATER CONCERNING THE COMPATIBILITY OF OSSABACHINES ORIENTED MACHINES LIKE THE IBM PC WASBK, ST, AMIGA, ETC... IS THERE GDING TO BE A STANDARD GRAPHICS DRIVER PACKAGE FOR OSSABBLES OF

MICROWARE YES. WE ARE OFFERING THE ISO/ANSI STANOARD VIRTUAL DEVICE INTERFACE (YDI) AS WELL AS A SOON-TO-BE-ANNOUNCED INTERMEDIATE LEVEL DRI VER STANDARD (GA)

JEFF S. I TAKE IT THAT THEY'RE NOT AVAILABLE WITH V 1.2 ? IS THERE POSSIBILITY OF GETTING MACHINE READABLE ODCUMENTATION FOR DS9/ GBK . . . SINCE IT SEEMS TO BE RA-PIOLY BEING ENHANCED ? GA

MICROWARE DUR GRAPHIES SOFIWARE WILL WORK WITH 1.2 BUT THEY'LL PRIMARI LY BE SHIPPED W/HARDWARE BECAUSE THE CODE IS PARTLY HARDWARE DEPENDENT... DUR DOC FILES ARE IN A WIERD LASER PRINTER MACRD LANGAUGES THAT WOULD LIKELY BE USELESS TO ANYBODY ELSE. (GA)

JEFF 9. OK, THANKS . . . 1T'S JUST THAT THE MANUAL UPDATES SEEM TO BE EXPENSIVE.

KARL WHEN WILL FORTRAN BE READY FOR THE COCO. OR SHOULD I SAY WHEN WILL THE COCO BE READY FOR FORTRAN?? (GA)

MICROWARE OUR NEW FORTRAN IS TOD BIG FOR LEVEL ONE SUCH AS CDCO. SORRY, BUT CAN'T SPECULATE ON FUTURE TANDY PRODUCTS. (GA)

KARL OUT OF CURIDSITY, HOW MUCH MEMORY WILL IT TAKE TO USE THE NEW HIJACHI GRAPHICS CHIP? [GR]

MICROWARE IT WAS PRIVATE VRAM — SIZE VARIES ASCOURDING TO THE H COLDRS MAX VIRTUAL SCREEN SIZE, ETC. ITHINK 128K IS A MINIMUM FOR NICE EFFECTS. (GA)

SUPER CONTROLLER

Features:

- Gold contacts on all connectors.
- * Shielded metal box for low Rf noise.
- * 4 28-pin sockets for software expandability.
- Uses 2764 or 27128 EPROMS.
- EPROMS are software selectable.
- Internal Mini-Expansion Bus interface for;
 - Parallel Printer or
 - Real Time Clock Parallel Printer or
- 80 Col Display Clock Parallel Printer or
- EPROM Programmer or
- User projects.
- Complete Radio Shack compatability.
- * New technology, no adjustments needed.
- * Very Accurate 16mhz High Speed Master Clock.
- * Needs 5 voits only, works on all COCOs or COCO lis.

EXPANSION ADD-ONS:

PPRINT

The first is a Centronics Compatable Parallel Printer Adapter. This adapter will allow you to connect a Centronics compatable printer directly to your controller, leaving the serial port of your computer free for your modem.

RTIME

The second is a Real Time Clock. This is a clock chip that will keep the proper time, date, and year. A small battery keeps the time when the Computer is off, retreive and set time by using simple Basic POKES. Also available with the Real Time Clock is the Centronics Compatable Parallel Printer adapter. Software to set the clock included.

MPROM

The third is a Mini EPROM Programmer. Yes, a low cost programmer that attaches to the disk controller. A must for the DISTO Super Controller. Program those often used utilities into EPROM and plug them directly into your controller. Will program 2764's or 27128's, a perfect mate for the DISTO Super Controller.

FOOD FOR BODY AND SOUL! OS-9 COMMUNITY BREAKFAST AT PALO ALTO

There's absolutely nothing that tops off a good meal like a good conversation. A drink won't do it, a good cigar won't do it, even a good movie won't do it. You could consider that the theme of the OS 9 Community Breakfast at the Palo Alto RAINBOWfest.

First there was the buffet breakfast itself, and the food was great. Then there was the conversation with the meal. Since the decision was made that there would be no head table, all of the UG officers were spread out. I was having fun with Lonnie Falk, Wayne Day and Dan Downard at my table.

Brian Lantz got up to open the speakers forum, and the fun really began.

We started with some news about what's what in the UG, new developments to be expected, the announcement about the planning of a grant to develop software that could be purchased through the UG library, and developing revenue for additional software development.

Then the awards were made, A tongue in cheek look at what's going on in the OS-9 UG from its President. All of the awards were made for fun with the award recipients getting the most laughs.

Wayne Day was asked to make some comments on recent changes to the OS-9 SIG. Wayne announced his assumption. of duties as the OS9 SIG's Sysop. Wayne contacted Jonathan Cluts and Pete Lyall during the Palo Alto RAINBOWfest to act as his assistant Sysops. Wayne says they are the real managers of the system. You can reach Wayne using his user id of 76703,376. Jonathan's id is 70235,457. 171. pass on Pete's when it's available.

I was asked to make a few comments n writing for the MOTD. If you haven't heard or read my pitch, read my column in the March issue of the MOTD, or join us in Chicago. The basics are that you should be a member of the UG, not just a reader of the MOTD. As Bill Turner says, "what you learn now you can share with others later on."

We finally got around to Paul Searby who was nothing short of fantastic! Paul kept his talk to the fundamentals, echoing much of what Dale Puckett talks about in his column this month.

Paul's thrust is a charge to the entire OS-9 community. We are the ones that are responsible for making OS-9 THE operating system of our time and beyond. Since every change to MS-DOS is an

DISPLAY80

The fourth is a real knock-out. This is a three in one card. It's major function is to add an 80° 24 display to your computer. A feature packed package also includes RTIME and PPRINT. All in one next package that fits inside the controller. Call for more information.

256K/512K SUPER RAM DISK

This is a ROM PAK the size of a typical controller. Inside this, low noise metal case, lives 256K/512K of memory and all the circuitry needed to access it as a RAM DISK. With proper software, this SUPER RAM DISK can be just like another disk drive. You can format it, save a file to it, load a file from it and delete files from it. In fact, anything that can be done on a regular drive, can be done on a RAM DISK, only faster. You see, being high-speed RAM, there is no hardware limitations on speed. It is much faster than even the fastest drive.

Another feature with the SUPER RAM DISK is that it has the same MEB as the Super Controller. That means that all of the add-ons that fit inside the controller will also fit into the RAM DISK. Note, a Multi-Pak is needed when using the RAM DISK with a disk controller.

OS-9 USERS

The OS-9 operating system is rapidly becoming a BEST SELLER. All the DISTO products are supported by OS-9 software. We have drivers for; PPRINT, RTIME, DISPLAY80, RAM DISK, and soon to come, HARD DRIVE. Just think of this, a floppy drive controller, a parallel printer port, the real time, an 80 column display, a 512K RAM Disk and a 20 megabyte Hard Drive, all in two slots of a multi-pak interface. AWESOME!



SUPER **PRODUCTS**

CREDITS:

The DISTO Super Controller, add-ons and all its documentation are conceived and designed by TONY DISTEFANO. The DISTO Super Controller and add-ons are manufactured and distributed by:

> CRC Inc. 10802 Lajeunesse Suite #102 Montreal, Quebec Canada **H3L 2EB** 1-514-383-5293

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inclusion of what's already in OS-9, and what OS-9 lacks compared to UNIX isn't a requirement of a multi-user/multitasking system, we should stop comparing OS-9 to UNIX. Add to that the fact that UNIX still hasn't been accepted throughout the market place, and Paul makes a very valid point.

Paul didn't stop with people like you and me. He went on to task the big guys like Microware and Tandy to make OS-9 a more accessible system for the new comer. People don't start programming in Assembly language. Computer companies have been marketing computers with BASIC for four or five years now. OS-9 comes with a good assembler and a handy editor, but neither is the same as a fundamental programming language. The suppliers of the operating system, according to Paul, have to give a programming language with the computer (I vote for Computerware's RANDOM Basic as an easy to learn language).

Paul's final charge was to make sure we (the UG) keep an open door for newcomers. Many of the people that join the UG are looking for answers. They don't know where to lurn, because OS-9 is to far removed from the Color Computer. So what do you do? You keep it simple and make yourself more accessible. Through our attendance at RAINBOWfests, we're doing just that. We're responding to individual questions and making sure the answer is understood. We're making some of the best known names in the OS-9 community available to everyone around. We're just trying to respond to Paul's charge.

With all that, what could follow? Well, come on out to Chicago and meet the creater of OS-9, Ken Kaplan. Along with those of us at the OS-9 booth, you'll meet some of the real leaders of the OS-9 community. We'll have Brian Lantz, Dale Puckett, Steve Odneal, myself and a